

THE NEW PUBLIC HOUSE  
WALL DECORATION AT BRIGHTON

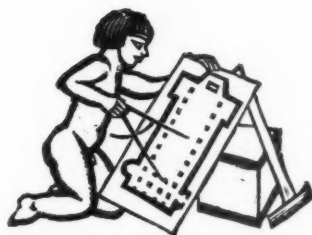


ONE of the mural panels executed for the Bristol Hotel, Brighton, by Mr. Morgan-Rendel. The paintings are in oil on canvas, and are sunk in the walls in the form of panels. The architects for the hotel were J. L. Denman and Son.



## THE HALL OF COLUMNS AT KARNAK

*A detail of the Hall of Columns of the Temple of Karnak. The temple buildings at Karnak were added to or altered by almost every Pharaoh from Usertsen to the Ptolemies (2433-52 B.C.). The Hall of Columns, built by Seti I, contains 122 columns similar to those shown, each being 40 feet high and 27 feet in circumference, as well as twelve others 60 feet high and 35 feet in circumference. It is believed that the Hall was originally roofed over.*



## DANGEROUS SIMPLICITY

THE B.B.C. recently broadcast a debate of very real interest to a bigger audience than any other kind of debate can hope for.

The motion to be decided by Sir Ernest Simon and Mr. Geoffrey Boumphrey was strictly "That flats can solve the housing problem," but to the ordinary listener it was, more excitingly, "Flats *v.* Cottages."

That the B.B.C. should hold these debates and continue to stimulate public interest on housing questions is immensely valuable, but "Flats *v.* Cottages" is a dangerously narrow subject for discussion in architectural circles.

Flats *v.* Cottages is a thing which everyone has views about, usually strong views, yet for serious technical discussion it has no more significance than Spoons *v.* Forks in relation to the study of nutrition. Mr. Boumphrey, of course, knows this, and to do him justice made it plain.

In debating Flats *v.* Cottages as both at present exist, and considering only the space and the manner of living within and immediately adjoining them, it may be rightly decided by the private citizen that houses are better than flats as a family dwelling. But because this question cannot be so isolated, because it is inseparably interlinked with other factors of time and transport, location and open space, work, recreation and health, we consider it unwise to encourage the public to think that it can. Nothing is so likely to result in a wrong public opinion as the oversimplification of the complex.

Let us see how Flats *v.* Houses is such an oversimplification—how dangerous it is to encourage the public to vote Spoons or Forks on the question of nourishment.

Great Britain is an industrial country and 80 per cent. of its population live in towns. In small towns, of 50,000 and under, new housing may take the form of houses or cottages without much inconvenience to the inhabitants. The houses may be badly laid out, inconvenient for traffic and unpleasing in appearance—but, by and large, the citizen is not much affected. A penny or twopenny bus ride takes him to work, and a mile's walk takes him to open spaces more or less sufficient for his recreation. In these towns there are at present no flats worth mention, and, if they grow no larger, their average inhabitant may wonder what all the fuss is about.

When a tremendous jump is taken in this survey,

however, across all middle-sized cities to those cities, or groupings of cities, of a population nearing a million or far beyond it, ten minutes' thought makes plain that the fuss is justified.

In these greater cities, which have constantly rejoiced in instead of regretting their increasing size, the housing problem resulting from that size has become stupendous, and stupendously complex. In them the man of low or moderate income is now forced to select his dwelling accommodation from amongst a few alternatives all having very grave disadvantages.

In these cities suburbs, corresponding to those now being built around small towns, were built forty years ago in dreary congested lines of streets. In the centre of the city flats are being built, but whether intended for the very poor or the moderately well off, are no fair example of what flats may be. Expensive, built high on inadequate sites, they compel residents to stare at each other across miserable courts, and are devoid of facilities for open air recreation. The citizen can, if he likes, live here.

On the other hand, beyond the older suburbs are the new suburbs—badly laid out, endangering by-pass roads, spreading indefinitely into what should be the city's playground. At the cost of transport and of one to two hours' weary travelling each day, the family man can, if he likes, obtain in such surroundings a thirty by eighty foot strip of garden for his children to play. All about and beyond these estates new industries have been allowed, indeed encouraged, to grow; bringing more traffic, more noise, more houses and more seizure of open space. Until the suburban dweller is suspended between two worlds, with an hour and its cost to be spent getting really in, or really out. The citizen may, if he likes, live here. Such are the alternatives.

So desperate has the scramble for cottage space become, so long the distances between home and work, and many the travellers, that one-tenth of London's wage-earners spend their energies moving the rest about.

This is the real problem of Flats *v.* Cottages—the problem of units, excellent when considered singly, losing in their huge chaotic multiplication not only all those excellent qualities but all hope of future improvement. Build six cottages and you have a surrounding of living almost ideal; build six hundred thousand and you have labyrinthine chaos.



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## NOTES & TOPICS

### BRAKE ON PROGRESS?

THE recent strike of bricklayers and plasterers, with the responsibility of fixing patent plaster partition blocks as the point at issue, reminds me of the curiously out-of-date position in which the building trade organization finds itself today.

It was but a few years ago that the exact point of demarcation between joinery and carpentry became reasonably defined; in those days the work of the plumber, the bricklayer, the tiler, the mason, clearly differed. But now we have a host of building materials and building methods which cannot readily be assigned to any one of the well-known building trade categories.

The conventions and limitations of the operative subdivisions are rapidly becoming a tax upon progress in building design. One is frequently faced with the position of having to discard a simple and logical detail because it is more expensive to construct under existing conditions than a more complicated, less satisfactory, but more conservative arrangement of simple elements.

And what, by the way, is the official trade union title or rank for the men who fix, say, plastic mouldings, synthetic glass, metal door trim, stone-slab roof pavings, compressed cork shuttering and metal foil insulation.

### OFFICIAL FORMS

Some days ago the charwoman arrived much agitated. She had, she said, got a paper telling her she must leave her house and she didn't know what to do. She had lived there practically since time began and she couldn't think what would become of her.

On looking at the paper I saw it was a notice informing her that the district in which she lived was to be town planned. It was an innocent enough form and even invited her to go and look at a map, but its appearance

and official jargon had not been understood and had terrified the poor woman.

It happened to be my wife's birthday, and while I read the form a telegram was delivered by a thoughtful Post Office who had gaily decorated it with bells and such-like things, and it occurred to me how pleasant it would be, and how much less terrifying, if our other Public Departments had a little of the Post Office spirit.

### TOWN PLANNING AND THE PUBLIC

This, and a paper in last month's JOURNAL of the Town Planning Institute urging the need for interesting the public in town planning, led me to amuse myself by asking about a dozen people, all laymen as far as town planning is concerned, what the term "town planning" conveyed to them.

The answers I got were rather illuminating. Two or three people thought that town planning was the same thing as the preservation of the countryside, about half of them thought that its principal object was to lay out garden suburbs, of which, to two people, culs-de-sac appeared to be the main guide as to whether they were town planned or not.

The remainder thought it was primarily designed to enable local authorities to place restrictions of one sort and another on the activities of its citizens.

There were differences of opinion regarding the reasons for imposing restrictions, which ranged from what was thought to be a perfectly proper desire to preserve amenities to some devilish underhand scheme to reduce land values. It was not known why anyone should wish to do this, but it was felt to be against the interest of the country and a disgrace to the Government.

If town planning depends upon public support, I am afraid that a lot of propaganda will be needed before anything very far-reaching is done.

### HERTFORD EXCITEMENT

I most heartily congratulate Messrs. C. H. James and Rowland Pierce on their success in winning the Hertford competition. Norwich, Slough, and now Hertford; no mean achievement in a few working months.

For Elizabeth Scott, J. C. Shepherd and John Breakwell there are both congratulatory and commiseratory feelings on gaining second place with a scheme so close on the heels of the winners.

The combined names for the third premium add to one's excitement over this competition result. Mr. Grey Wornum returns magnificently to the field of competition battle, and ties with none other than Messrs. Connell, Ward and Lucas, who have departed from the immaculate formality of reinforced concrete to produce a scheme worthy of the most Scandinavian-Romantic-Neo-Classic-Humanistic, virtuoso.

I must retire for awhile and make a major adjustment in my conceptions of architectural standards.

### ILLUMINATIONS

A week or so ago I saw for the first time the October illuminations at Southend-on-Sea, and was much impressed.

I thought it grand that an English seaside town should





*Mr. C. H. James, who, in partnership with Mr. S. Rowland Pierce, has won three major competitions in the last two years. The results of their latest win, Hertford Central Offices, are illustrated on pages 621-625 of this issue*

have had the courage to indulge in a little honest fun, in a gaiety comparable to that of the gayest Continental resorts—and without in any way losing its English character.

We all know the few loops of coloured bulbs which generally straggle across a promenade, a pier or town square in a half-hearted effort at celebration . . . I never thought to see the effect of hundreds of such loops, stretched along a seafront for some three miles, every post to which they are attached an illuminated shell of colour and every patch of ground they pass filled with giant illuminated flowers, birds, animals, fishes, pylons, shades, shields, boats and a multitude of shapes more difficult of recognition.

There was not much design about the individual illuminations, but the whole scene was gathered together in one great unity by the lighting, one gay and generous mood expressed, enough to gladden any man's heart. What a pity it can't go on all through November.

#### WHY FENCES?

Why do people insist on fences between their plots of gardens?

I have just been able to persuade a client and his adjoining owner to take down the fence between them. Both are as delighted as I am with the result. Both houses have taken on an added dignity, set now in parklike surroundings and enjoying the full values of view and distance, sloping ground and informal line.

In Vienna many gardens are treated in this way; in America estates have discarded even front fences, and there are at least two examples of fences pulled down to form common gardens in Bloomsbury.

Do people really want to buy fences, or is it that imagination does not extend to embrace the fenceless state?

#### CULTURAL ACTIVITY

The winter season has started in earnest with notices of organized activity in almost every sphere of cultural life. Quite the most entertaining series comes, curiously

enough, from the R.I.B.A., whose Social Committee appears to have combined a commendable energy with an essentially human outlook.

The winter programme not only includes the usual series of dances in No. 66 Portland Place, but also reveals a first-rate harpsichord concert by Alice Ehlers and her viola da gamba and viola d'amore collaborators on November 11 next. Following this, a current play by Mr. Hope Bagenal is to be produced towards the end of November . . . but of that more anon, as they are reputed to say in dramatic circles. And following that, the Chamber Opera Company are to perform at the Institute on December 16.

The Mistress Art takes in music and drama. If this activity can be extended to the other arts, at least to painting and sculpture, it looks as if the R.I.B.A. might become a cultural centre in London. And, bless my soul, why not?

#### REALITIES

In these days of research and information services, of reference books and masses of technical data, I wonder how many architects return to their completed buildings to test them out by personal use and habitation?

One of our younger architects told me yesterday of a week-end he had arranged for this purpose in one of his houses. The house contained experiments both in planning and construction and my young friend felt he needed first-hand knowledge of the success or otherwise of the work.

The client agreed and during the week-end, with the architect as one of the family, every conceivable occasion was enacted—a noisy party, dancing, a quiet hour, music and bridge, maids in the bedroom and family reading below, a riot in the nursery as an important guest arrives in the hall, and so on.

And then at night the gale and storm took a hand, giving the architect the unique opportunity of lying awake under three different sorts of flat roof construction and of noting that two of them were less transparent to the noise and rain than the slated roof of his own house.

ASTRAGAL

#### CINEMA ISSUE

*A special issue of the JOURNAL, devoted to cinemas, will be published next week. The issue will contain illustrated articles on planning (super cinema—Robert Cromie; news reel—Alister G. MacDonald); construction (J. R. Leathart); interior design at home (Walter Goodesmith); interior design abroad (P. Morton Shand); equipment (E. F. Tulley); acoustics (C. W. Glover); and a selection of photographs and plans of the more recent work of prominent cinema architects.*

*Owing to the pressure on our space, the Technical Section has been held over from this issue.*

## NEWS

POINTS FROM  
THIS ISSUE

- One-tenth of the wage-earners of London spend their energies moving the rest about..... 615
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## HOUSING

The Prince of Wales, speaking on slum clearance and overcrowding at the centenary banquet of the Association of Municipal Corporations at the Guildhall, London, last week, said that the most important service of local government was in housing. Since 1933 both the Government and the local authorities had been stirred into action and a great deal had been accomplished.

The past two years had seen an encouraging start to remove this "slur upon our civilization," but they must beware of too-easy satisfaction and relaxation of efforts towards the great goal—total abolition of slums. "This can and must be achieved," he said.

## THE NEW GOVERNMENT OFFICES

The Town Planning and Building Regulations Committee and the Parks Committee of the L.C.C. have approved the Government scheme for the extension of Scotland Yard and the erection of new Government buildings on the site of Whitehall Gardens. They suggest that all emergency buildings erected since 1914 should be removed.

WEST YORKSHIRE SOCIETY OF  
ARCHITECTS

Mr. Victor Bain, F.R.I.B.A., in his presidential address to the West Yorkshire Society of Architects at Leeds on October 24, asked: "What can be done to ensure a wiser application of the existing powers of planning control which, at the present time, are the responsibility of local authorities, acting under the higher control of the Ministries of Health and Transport, who have to approve the schemes prepared by the local authorities?" He pointed out that on several occasions during the past year he had advocated the setting up of a National Planning Council, whose duty it

## Thursday, October 31

L.C.C. GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Furniture: London of the Sixteenth and Seventeenth Centuries." By D. Martin Smith. 7.30 p.m.

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.1. "Further discoveries of the town wall of London and the foundations of the procurator Julius Classicianus." By F. Cottrill. Also, Iron Age and Saxon Finds at Harston, Leics. Exhibited by G. C. Dunning. 8.30 p.m.

DESIGN AND INDUSTRIES ASSOCIATION At the London School of Hygiene and Tropical Medicine, Gower Street, W.C.1. Discussion on "The Design and Making of Plastics," to be opened by H. F. Potter, E. J. Wyborn and A. E. Barnes. 8.15 p.m.

R.I.B.A., 66 Portland Place, W.1. Exhibition of drawings by students exempted from the Intermediate Examination. Until November 1. 10 a.m. to 8 p.m.

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 Lincoln's Inn Fields, W.C.2. "Rent—Its Nature and the Causes of its Variation." By T. G. Head. 7 p.m.

## Friday, November 1

ARCHITECTURAL ASSOCIATION, 36 Bedford Square, W.C.1. Third of a series of five non-technical lectures entitled "Building London." "Present-day Problems: (a) Life and Work." By R. A. Duncan, A.R.I.B.A. 8 p.m.

INSTITUTION OF MECHANICAL ENGINEERS, Storey's Gate, Westminster, S.W.1. "Strength of Metals under Combined Alternating Stresses." By H. J. Gough and H. F. Pollard. 6 p.m.

## Monday, November 4

R.I.B.A., 66 Portland Place, W.1. Inaugural general meeting. President's inaugural address, unveiling of portrait of Past-President. 8.30 p.m.

THE HOUSING CENTRE, 13 Suffolk Street, S.W.1. "Differential Rent Relief in Practice in Leeds." By the Rev. C. Jenkinson.

INSTITUTION OF STRUCTURAL ENGINEERS, London Junior Members' Section. At 10 Upper Belgrave Street, S.W.1. "Steelwork Erection." By H. W. Brinkworth. 7 p.m. Midland Counties Branch. At the James Watt Memorial Institute, Birmingham. "Structural Welding." By A. Ramsay Moon. 6.30 p.m.

## Tuesday, November 5

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A. Building, 66 Portland Place, W.1. "Chichester Cathedral." By P. M. Johnson, F.S.A., F.R.I.B.A. 8 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS, South Wales and Monmouthshire Branch. At the Institute of Engineers, Cardiff. Chairman's address by D. Manolopoulos. 7 p.m.

## Wednesday, November 6

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the London School of Hygiene and Tropical Medicine, Gower Street, W.C.1. "Electric Thermal Storage." By John Eden. 7 p.m.

would be to see that the schemes of local authorities conform to a general plan for the whole country. All planning schemes would then be properly related, local authorities would still be administrative, but they would be required to submit town planning proposals to the National Planning Council in which their schemes of development, re-development and improvement would have to be indicated, though not necessarily in detail.

## CIVIC CENTRE, READING

The proposed new civic centre for Reading was discussed at a recent meeting of the Reading Town Council, and the Town Clerk was asked to ascertain from the R.I.B.A. the names of architects specially qualified to advise the committee on the problem under consideration.

BIRMINGHAM AND FIVE COUNTIES'  
ARCHITECTURAL ASSOCIATION

Mr. G. Grey Wornum, F.R.I.B.A., in reviewing current craftsmanship in con-

nection with architecture at a recent meeting of the above association, said that one must forbear to condemn too readily what might prove mere fashion. There was no doubt that so-called "fashion" was a vitalizer to civilization as well as of great assistance to trade.

## MINISTRY OF HEALTH

The Minister of Health, Sir Kingsley Wood, has appointed Mr. S. F. Wilkinson to be his Assistant Private Secretary.

SOUTH WALES INSTITUTE OF  
ARCHITECTS

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch), Mr. E. R. Jarrett, A.R.I.B.A., gave a lecture entitled "Commodity, Firmness and Delight" at the Engineers' Institute, Cardiff, on October 24.

A vote of thanks was accorded to the lecturer on the proposal of Mr. J. H. Williamson, A.R.I.B.A., seconded by Mr. W. S. Purchon, M.A., F.R.I.B.A., and supported by Mr. W. M. Keecey, H.M.I., A.R.I.B.A.

## A CORRECTION

In the advertisement of the London Brick Co. and Forders, Ltd., on page xxv of last week's issue, the name of the architect for the block of 48 flats was incorrectly given as Mr. Guy Church, F.R.I.B.A. The name of the architect for this scheme is Mr. Guy Morgan.

## AN ARCHITECT'S WILL

Mr. Arthur R. Welby, architect, of Richmond, Surrey, left £42,000 (net personality, nil).

## R. I. B. A.

## THE FIRST SESSIONAL MEETING

The new session of the Institute will be opened by a general meeting on Monday next, November 4, at 8.30 p.m., when the President, Mr. Percy Thomas, O.B.E., will deliver his Inaugural Address and the portrait of Sir Giles Gilbert Scott, R.A., the Past-President, which has been painted by Mr. R. G. Eves, A.R.A., will be unveiled and presented to the Institute.

## ELECTION OF MEMBERS

At a recent meeting of the Council of the Institute, the following members were elected:—

As Hon. Associates (3): The Rt. Hon. Viscount Charlemont (Co. Tyrone); A. E. Gill (High Wycombe, Bucks.); and A. N. Shelley (London).

As Fellows (7): P. Dangerfield (Nairobi); F. X. Velarde (Liverpool); G. P. Banyard (Cambridge); C. B. Marshall (London); J. D. Robertson (Bulawayo); A. J. Seal (Bournemouth); and H. Sherwood (East Ashling, near Chichester).

As Associates (18): H. G. Baker (Birmingham); (Miss) S. M. Cooper (London); (Miss) J. B. Drew (London); L. H. Hill (Edinburgh); (Miss) P. G. Hollings (London); S. W. Lucas (New South Wales); H. Norcliffe (Wallasey, Cheshire); J. Rangeley (London); C. W. Roxburgh

(Cape Town); J. Scholfield (Holcombe Brook, near Bury); C. J. Slade (Johannesburg); H. S. Smith (London); R. W. Syme (Hawera, New Zealand); R. Thacker (Pool-in-Wharfedale, Yorks.); D. A. Thomerson (Chigwell, Essex); S. H. Todd (Pretoria); E. G. Tucker (Johannesburg); and H. F. Walls (London).

*As Licentiates (7):* S. Cockburn (Belfast); W. Jackson (Bradford); W. C. Minchin (London); E. Prince (Derby); B. A. Savage (Portsmouth); C. S. Strange (London); and E. A. White (London).

#### CHRISTMAS HOLIDAY LECTURES

The ninth series of Christmas Holiday Lectures on Architecture will be given at the Institute by Mr. G. A. Jellicoe, A.R.I.B.A., on Monday, December 30, Wednesday, January 1, 1936 and Friday, January 3. The talks, which will be illustrated by lantern slides, will be held at 3.30 p.m. on each day.

Mr. Jellicoe has selected as his subject:—*The Architecture of Gardens.*

(1) Italian Gardens; (2) French Gardens; and (3) English Gardens.

#### EXAMINATIONS

At the R.I.B.A. Statutory Examination for the Office of District Surveyor in London held on October 9, 10 and 11, five candidates presented themselves and the following were successful in the examination:—Messrs. Gerald L. Goulden and John H. Whittaker.

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities held on October 9, 10 and 11, three candidates presented themselves and the following were successful:—Messrs. Frank A. Cash and Ronald Entwistle.

#### IN PARLIAMENT

##### *The King's Speech*

Following are some extracts from the King's Speech when Parliament was prorogued on Thursday last.

"Highway authorities have been asked to submit their programmes of road improvements on a quinquennial instead of an annual basis. The response augurs well for the scientific planning of our roads to meet modern requirements.

"I have given my consent to a Bill providing for the control of ribbon development along the frontages of roads, and for the prevention of interference with traffic.

"My assent has also been given to a Bill which provides, for the first time, for a full survey of overcrowding, and equips local authorities with new powers for dealing with the twin evils of slums and overcrowding, while at the same time remedying certain anomalies in the law which pressed unfairly on owners of house property.

"During the year progress both in the clearance and replacement of slums and in the provision of additional houses has been on an unprecedented scale.

"Among bills relating to Scotland which have received my assent are measures providing for the better housing of the people, and for the continuation and amendment of legislation relating to the education endowments commissioners."

##### *Town and Country Planning Act*

The Marquess of Hartington asked the Minister of Health whether his attention had been called to the delays and inconvenience caused to the building trade by the

application of the Town and Country Planning Act to London; and what action he proposed to take.

Sir K. Wood said he was aware that complaints of delay had been made in connection with the approval of plans under the Town and Country Planning Act by the L.C.C. He had gone into the matter with the Chairman of the Town Planning and Building Regulations Committee of the County Council, and he was assured that every effort was now being made to facilitate the submission of proposals by builders and architects and to accelerate their consideration.

#### *Qualification*

Mr. Banfield asked the First Commissioner of Works whether women assistant architects, Grades I and II architects, and senior architects were required to possess the same qualifications and perform the same duties as the men; and, if there was any differentiation in their pay, whether he could state its nature.

Mr. Ormsby-Gore said that women were eligible for admission to architectural posts in his Department under the same regulations as men.



#### FLAT v. COTTAGE

*Following are some extracts from the report of the debate "That Flats can Solve the Housing Problem," broadcast in the National Programme on October 19. The opposer was Mr. Geoffrey Bumphrey; the opposer, Sir Ernest Simon. The extracts are printed by courtesy of "The Listener."*

##### G. M. BOUMPHREY

In spite of the immense weight and variety of experience that will shortly descend on me, I cannot help feeling that what I have to fear most is nothing more or less than an old saying: An Englishman's home is his castle. It is not true, of course. You never get castles looking straight into each other's windows, and the modern idea of a portcullis cannot even keep out the man who wants to sell you vacuum cleaners, but it is none the less dangerous for all that. As a matter of fact, where the working classes are concerned, it would perhaps be truer to say that the English woman's home is her prison—at any rate if she has got small children. But let us examine the motion that flats can solve the housing problem.

You don't solve that merely by building enough houses, if by doing it you lead to all sorts of trouble in either directions. And that is what I think we are doing at present. We have built something like three million houses since 1919, and we have got another two million more to build in the next ten years. Think what the effect of those three million has been, and then agree with me that it is at least worth while pausing for consideration before going on with them. Part of the effect is obvious. We are spoiling the countryside. The English landscape that many people, even foreigners, think the most beautiful in the world in its own way, is

being ruined. Thousands of acres of good agricultural land, and especially valuable land for market gardening, lying on the outskirts of towns, is being ruined for agricultural purposes almost for centuries. Then, look at the towns themselves, and let me make it clear here that I am only talking of the large towns—fifty thousand inhabitants or over. The smaller ones can get on perfectly well with cottage development, but the large ones have become utterly unwieldy. They have hedged themselves in with an inefficient fringe of suburbs, which is slowly choking the life out of them, with the absurd waste of time and money it costs. The Midland Regional Advisory Scheme actually contemplated a built-up area stretching from Worcester to Stafford, and Coventry to Kenilworth. It's a perfect fact. Some think that a few carefully arranged amenities, green belts and so on, would make that area habitable. There's cottage housing for you. However, I think we might feel it was our duty to put up with all these drawbacks if we were convinced that the population was getting the best possible housing as a result of our sacrifice. But are they? Is a Tudor Walter cottage the best we can do simply from the point of view of those who live in it. I rather doubt it in many cases. Let us see what flats can give that cottages cannot.

First of all, by reducing the size of our towns, they can keep the workers near their work. When I was making the Town Planning survey of the Midlands last year I was told by several social workers that in many suburbs the men arrived home too late and tired after their long journey to do anything but have a meal and go to bed, and the younger members find night schools out of their reach for precisely the same reason. Then what about the drain on the family purse for fares? Special cheap rates only mean that the ratepayers are providing an indirect subsidy. I saw in the paper only the other day that Birmingham is having trouble with its transport finances, a loss of 2½d. a mile on workmen's tickets and dwindling receipts from the lucrative short distance journeys in the city itself. This sort of thing cannot be left out of the account when the case of flats and cottages are compared. As well as being near their work the inhabitants of a compact town are near their shops and amusements. Another thing often left out of account with extensive open development, internal distances are increased about fourfold, which means no popping round the corner to the shops. Cinemas may be a mile or more away. That is a thing that hits the town people very hard when they get down to the suburbs, especially the poorer mother of a family. To give the same satisfaction, there ought to be four times as many shops and cinemas, and all things town people like. Actually, of course, there are never nearly as many in a new suburb.

There has been far too much attention focused on the romantic picture of the breadwinner, returning home to pure air, and digging happily away in his garden, to provide his family with lots of vitamins. His wife has been rather neglected. Flats are far easier to run. Notice the way the upper and middle classes—the very people who can afford to choose—notice the way they are all tumbling into flats, especially in London. But for the working classes, flats can give the woman all sorts of luxuries she cannot hope for in a cottage. She can be given constant hot water at less than half the price it costs her to heat it for herself. She can have the use of a properly equipped laundry and drying room, to save her hours of work. A woman can leave her children in crèches and kindergartens, or turn them out into playgrounds where they will be looked after. All these things have been done with flats on the Continent—they are not just dreams. It is no exaggeration to say that properly equipped flats can revolutionize the life of the working class woman, with the consequent gain to her health and her children's health.

Lastly, the flat dweller can have more real privacy and bigger gardens. I know that sounds a bit astonishing. But just think for a minute—what privacy is there in the average cottage? You have to put a net curtain before



your front windows to stop the passers-by looking in. The garden is overlooked from three sides. Ten to one the bedrooms look on to other people's back gardens. If not, into other people's bedrooms. Is that privacy? Now in the properly built flat, on the other hand, no window can be overlooked at all. But I had better explain what I mean by a properly built flat. Certainly not the English idea of working class flats—great grey blocks with an asphalt covered court in the centre, noisy and gloomy. There seems to be only one ideal lay-out for flats, and that is in lines, and not in blocks—parallel lines with every flat running roughly north to south. That gives the maximum amount of sunlight to every flat. When the flats are built in that way, the sun shines all the morning on one face, and all the afternoon on the other. With eight to ten storey buildings (which you need anyway to get enough flats) you need to have lifts, so as to avoid trouble in access to galleries. The blocks will be 70 to 100 yards apart. Seventy feet has been considered very good practice for cottages. You have just as much light and air—perfect aspect for every flat—and here comes the astonishing part—you find yourself with over 40 per cent. of ground left over, assuming you are merely housing the same number of people. The one trouble is that you cannot have your own garden actually round your door. It would be a communal garden here, your own may be two or three hundred yards away, but you will have the balcony, which might be quite enough to absorb the energies of all those who are not really keen gardeners, and by the way, why do town planners assume everyone is a keen gardener, and that every house is full of babies? There are quite a lot of exceptions.

Now, then, look at the privacy of a flat dweller. The ground floor will generally be given up to shops and garages, so passers-by will not be able to look into his windows. His own outlook will be on 70 yards or more of green open space, wide enough to grow real full-sized trees. There will be no traffic passing his flat, because the road runs past the ends of the blocks and not between them. If his neighbour has a rowdy loud-speaker he will hear less of it squirting straight away from him through the open window than he will from a cottage a few yards away; and the other blocks are too distant to worry about. There should be no difficulty nowadays in making the structure as near soundproof as doesn't matter. The technique is known. So much for the tenants, and I think you will agree that there is at least something to be said for flats, even from their point of view. But the thing goes far deeper than that. It is not just a question of whether a cottage or a flat is better to live in. It concerns our whole attitude towards town and country planning. At present our idea is that towns are bad—incurably bad, noisy, crowded, smoky, unhealthy. We will forget about them and will build nice healthy garden suburbs all round the edges. That, I say, is utterly wrong. The towns are bad, but thousands of people still have to go on living in them, and millions and millions of pounds have been spent in developing them. Are we going to continue walling up those people further and further out of reach of the real country, and are we going to allow that money to be wasted, as our towns go slowly rotten in the centres—and there are some signs of that showing already? The country was good until this flight from the towns began, and here is a new slogan for you: The only way to save the country is by making the towns fit to live in. We are refusing to face the facts. The towns are the things we must tackle. The last century made them foul. It should be our job to make them clean again. We must get more space and light into them, and at the same time condense them. Flats give us the chance of doing this. They are not a means of crowding more people into a congested area. They are a means of releasing 80 to 85 per cent. of that area for open space. By the proper use of flats (a proper use) we can have green towns, full of gardens, trees and parks, with roads wide enough to take even the far greater traffic of the future. We can do away with an immense amount of waste of time and money and

unnecessary travelling. We can give the poorer classes a richer life, and the countryside can be saved for its proper purpose—agriculture. We can bring the real country back within reach of the two, and so let it fulfil its other purpose—as a place of recreation and a giver of mental peace—a peace that won't be found in the contemplation of any garden suburb.

## SIR ERNEST SIMON

I congratulate Mr. Boumphrey on a very eloquent and very courageous picture of the kind of life flats can give to the people who live in them. Mr. Boumphrey has travelled all over Europe and seen flats in many countries, and while he was speaking he almost convinced me that no sane person could ever want to live in a cottage of his or her own. But when I stop and reflect on some of the things Mr. Boumphrey said I must confess that I am astounded.

I want to deal first with what is probably the most astounding of all the claims he made—that you get more privacy in one of those blocks of flats than in a house of your own. Actually more privacy. Now I have tackled this thing in rather a different way from Mr. Boumphrey. I have gone and talked to the people who are living in the houses and flats, and I got some very experienced women social workers to do the same thing for me. I have asked them to enquire into this question. They tell me that as regards privacy the tenants they have come across are unanimous in saying that they cannot get privacy in flats. One woman said that when she had a row with her husband—and who doesn't occasionally have a row with her husband?—well, in a cottage it doesn't much matter, but in a flat everybody knows you are in trouble. Another woman said that in flats with the doors about a yard apart her neighbours would have thought the probation officer was only a gentleman if they had not been able to hear what was said at the door. Another said that neighbours are able to listen to every word you say, and that it was impossible to owe a little money in comfort and privacy. Yet Mr. Boumphrey has the audacity to say that you can get more privacy in flats. Well, I should not like to say Mr. Boumphrey was flat-minded—that perhaps might be misinterpreted—but I am prepared to say that I am afraid I am definitely cottage-minded. My experience has been in Manchester, in connection with the building of cottages, and I must say on the whole that the more I see of them the more I am inclined to like them.

There is another difference between us. Mr. Boumphrey is advocating flats that don't exist, certainly not in this country. I am advocating cottages which do exist, and I am going to base my argument on the cottages at Wythenshaw. Wythenshaw is one of those despised satellite garden towns (we call them) built by Manchester just outside its own boundary. I must just try to tell you briefly what it is. Manchester has taken 5,000 acres, and has planned (we have bought most of the land) a satellite garden town that will have 25,000 houses, and will hold 100,000—a population of 100,000. It is what Mr. Boumphrey considers one of the large towns, to be planned by the best possible experience. Our chairman advised us on it in the early stages, and we planned it out with parkways, parks, open spaces, and schools so arranged that the children should not have to cross over the main roads as far as possible, and, as I say, ultimately to house 100,000 people.

Now all these 100,000 people are going to live in cottages, unless Mr. Boumphrey can persuade the Manchester City Council that flats are preferable. Let us just consider now. According to Mr. Boumphrey, there is an enormous waste of good agricultural land. Most of these 5,000 acres ought to be growing wheat, or something of the sort. Now, what do you think is happening there? The major part of the housing estates are, of course, gardens. The house itself occupies only about one-tenth of the area. The rest is occupied by gardens. Now

the front gardens are almost always devoted to flowers. I remember going round in a competition at Wythenshaw last year and seeing the prize-winning garden. A man who had come out four years before from a slum and had never had a spade in his hand had produced a most beautiful garden—a blaze of colour—and it had made a complete difference to his life and his family's life. There it was—the front garden making the whole place beautiful. And when Mr. Boumphrey asks why town planners think that everybody is a gardener the answer is, that if you go round these estates you find practically all the gardens well kept. Now the back garden is generally devoted to vegetables, and the average value of the vegetables grown is about one shilling a week, which means fifty-two shillings a year. The vegetables grown, Sir Raymond Unwin pointed out, in a housing estate are worth a great deal more than the average product of the whole area if it were a farm devoted to growing wheat and other things. So far as the produce is concerned, it is not actually producing more vegetables than if it were entirely devoted to agriculture, as well as producing flowers. That does not sound very much like wasted land. But the real value of the garden is not so much what it produces but its effects on family life. There is the garden right to your front door—right to your back door. The woman can do her housework, cooking and washing; the baby can be out in the garden in the pram; children can be playing about in the garden perfectly safely. Mr. Boumphrey did not admit that; but nobody can pretend that mothers, high up in flats, are not in constant fear of the danger of children falling downstairs. In cottages the mother need not watch the children—they are perfectly safe, out in the open air, and she can be pottering in and out in between her work. The husband while he is working in the garden, first of all, can also be in and out—in touch with his wife. As one of them said: I can call out to my wife and ask where to plant certain flowers. She can tell me what to do, and if I don't do it she doesn't like the garden. Mr. Boumphrey thinks that a garden two or three hundred yards away is equally good. Mr. Boumphrey's wife may perhaps be more tolerant than some of our wives.

Now Mr. Boumphrey, it seems to me, is almost incredible when he says that this land devoted to gardens, which produces more actual food and does produce vitamins—I stand up for the vitamins, in spite of Mr. Boumphrey's mockery. It produces fresh vegetables for the children; which are extraordinarily good and extraordinarily important for them. It produces more food than agricultural land. It produces flowers in addition, which makes family life much happier and fuller. We have built two and a half million houses with gardens of that sort since the war, but there are still millions of people who have not got them. So far from being waste land it seems that this land is by far and away the best used land in the whole country. The only pity is that there are still millions of people living in slums who cannot get gardens of that sort. May I just give you one or two illustrations of that, and how it works out with flats? Here is a woman with three children under school age living on the fourth floor in a beautiful block of flats with a green grass courtyard. She is not very strong, she said. She cannot get them downstairs to play on the grass, because she is so far away—she cannot run up and down all the time. She says she sometimes wishes they could not see the grass because it makes them want to get down to it. She had one sick child—very often ailing. Whenever that child was ill, the very time when it was bad for the others to be indoors all the time, she was unable to let them go out at all.

Here is another case. The effect of the garden on the man. A couple living in an old cottage in Bethnal Green—poor conditions—were asked what they thought about moving to a new block of dwellings under a clearance scheme. He said: "You seem tied down in those places. You can't get much air. Here we have a bit of garden to pass the time. Take the old gentleman opposite. He comes out during the

evenings and potters about in his garden for a couple of hours. If he had not got it maybe he would go somewhere else to amuse himself. (Perhaps Mr. Boumphrey thinks it might be better if he did.) I am not a teetotaler myself," said the man. "I am not saying I should not spend the time in the public house if I hadn't got a garden."

Now I will give you just one more example. A family who moved from Dagenham to Southwark because they could not afford the fares. They said the children are not so well now. They used to be out of doors. The baby lived in the garden. Now he can only be put to sleep under the open window. The husband used to spend much of his time working in the garden. He feels lost without it. A boy of 12 likes carpentry. He cannot do it in a flat. The children have to be kept quieter than they ought to be, and there are all sorts of other objections—privacy, noise, danger—and many of them said that they feel they have lost their freedom in the flat. But there is one thing which is a major thing from the point of view of tenants, to which Mr. Boumphrey never referred, and that is the cost of the flat.

Now a flat costs anything from £100 to £150 more than a cottage. A tremendous difference. It means at least three shillings extra on the rent. That is if you have almost none of those numerous amenities—kindergartens, crèches and so on—which Mr. Boumphrey seemed to assume that flats all automatically had. I have been last week over the latest block of flats to be finished in this country, in Manchester—the Smetter Lane flats. There was no crèche, no lift. There were not even window boxes, because when it came to the cost they found them too expensive. The committee said: We cannot afford the extra cost of window boxes. There was a communal laundry and I went up and asked a woman in the laundry what she did about the children while she was washing in that very beautiful laundry. She said: Well, I have three small children and one girl of thirteen years. I could not bring them up here—there is nobody to look after them—so I keep my girl away from school to look after the other three children while I am washing here. Had it been a cottage she could have looked after them herself. The difference is three shillings a week without any of these amenities. If you had lifts, which are almost essential, the Housing Director in Manchester told me it would be half a crown extra on the rent. So there you are. You would have to pay (Mr. Boumphrey, I think, admits lifts are necessary) something like 6s. a week extra on the economic rents of these flats in the centre of Manchester, without reckoning for the cost of the ground, as against cottages in Wythenshaw—6s. a week, to have no garden, not even a garden three hundred yards away in that case, and to have none of the advantages of family life in the cottage. Well now, it does seem to me extraordinary. I estimate that when you are building in the centre of a great town like London or Manchester, with heavy transport charges and high land values, you are forced to build flats, because people must be near their work. That is because we have these overgrown cities.

When you are building in a placelike Wythenshaw—Wythenshaw is a self contained city, with a population of 100,000—twice the size of Gloucester—Mr. Boumphrey suggests it is going to spoil the countryside. Well, Mr. Boumphrey has explored a great many countries and examined flats in them. I have examined flats in Manchester, but Mr. Boumphrey has never visited Manchester and had a look at Wythenshaw, and I want to challenge him to come and look at it, and say to us whether he thinks we are right in housing all these people in cottages with gardens right at their door, where their children can play happily and the mother can look after them, or whether he preferred in Wythenshaw to build flats with gardens two or three hundred yards away, which is of course quite pleasant.

Whether we are right, or whether he has the courage to say we are wrong in planning Wythenshaw purely as a cottage estate.

## COMPETITION NEWS



## THE HERTFORD COMPETITION DIVERSE OUTLOOKS

*Mr. Robert Atkinson, F.R.I.B.A., the assessor in the competition for proposed central offices, Hertford, has made his award as follows: Design placed first (£350): James and Bywaters and Rowland Pierce, of 5 Bloomsbury Street, London, W.C.1; Design placed second (£250): Scott, Shepherd and Breakwell, of 12 York Buildings, Adelphi, London, W.C.2; Designs bracketed third (£150): Connell, Ward and Lucas, of 25 Grosvenor Place, London, S.W.1; and Grey Wornum, of 29 Devonshire Street, London, W.1. Commended: Tarling and Sims; and W. F. Howard. 62 schemes were submitted for the competition.*

THERE can be no doubt that competitions nowadays are becoming very exciting things. Widely varying outlooks, concerning not only every aspect of architectural design but also the whole rôle of the architect in society, are passing from discussion and entering into schemes submitted in open competition. This is rather important.

Ten years ago competitions were simpler things; some may feel, better things. Competitions such as Hertford were games in which few dreamt of breaking the rules of precedent. Symmetry, fullish classic or neo-Georgian, double circulations, grand staircase and council chamber on the centre line: these were universally acknowledged as the framework of a good plan. Circumstances might compel variations, sometimes mannered and sometimes brilliant, but these occurrences were generally felt to be regrettable.

Things have changed now, though the rate of change is still determined by the slowest, or by the success in persuading promoters achieved by each assessor. The old rules were too precise, too damping to initiative to survive the strain of new ideas, even if they could achieve an honourable compromise with new materials. For the moment no one knows what is going to happen in any competition.

From the conditions, Hertford did not seem likely to prove a gateway to progress. A tiled roof, with brick walls and stone dressings were suggested as an appropriate treatment externally; three floors above the basement, though not compulsory, was broadly hinted as being the limit

of desirable vertical development; and a tabulated guide to the floors upon which each department might suitably be placed was also included in the instructions. These stipulations are normal and by no means exclude good planning; but they do not cause any expectation of the variety of solutions submitted for Hertford. The large site may explain some of this variety, despite the deductions that might have been expected from the statement that the main approach to the buildings should be from the corner of Bullocks Lane and Pegs Lane. Most of it, however, must be due to competitors taking advantage of the freedom of the site to design according to their individual convictions.

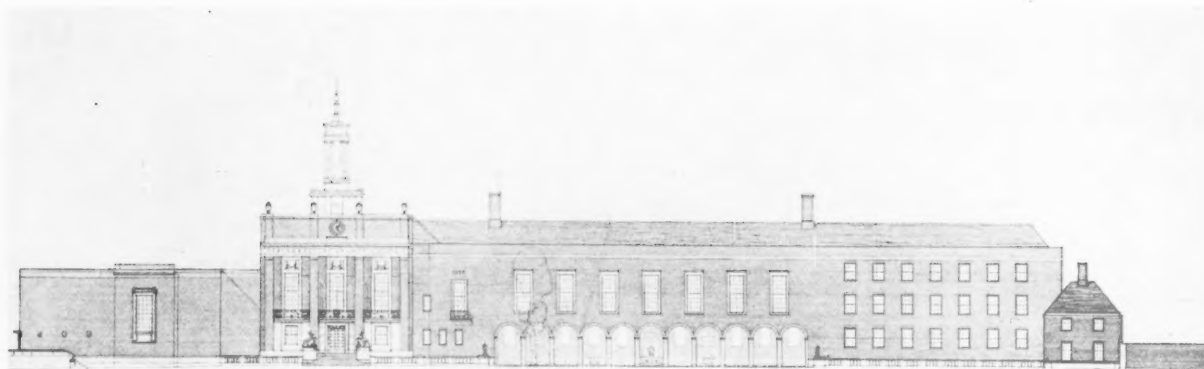
The results are most stimulating. Plan forms were submitted in the shapes of stars, triangles, swastikas, horse-shoes, squares, oblongs and aeroplane—in fact in every conceivable shape save the circular. And elevational treatment was almost equally various, though a considerable minority might be said to have been obviously much impressed by modern Swedish work.

The assessing of these many separate approaches to a solution must have been work of most unenviable difficulty, and leaves, indeed, as the most interesting question, not the reasons for the selection of the fortunate so much as the cause for the rejection of some of the rest.

As one who spent some time upon the Hertford competition before deciding that he had insufficient conviction to enter for it, the present reviewer found that the major problem was that of circulation. There was a lot of accom-



## COMPETITION FOR PROPOSED CENTRAL

*The main elevation.*

modation desired—which compelled the adoption of the central corridor plan. Even with this type of plan the total feet run of office space was large, and yet with such an open site a good outlook for all offices seemed one of the first requisites of the winning plan. Thus, on the question of open planning versus quadrangle, with the resulting short or long circulation, the whole competition seemed to hang. How often does the weights and measures man drop in on the clerk to the council, and why cannot someone settle this for ever?

From this viewpoint of circulation and disposition the designs were approached in great anticipation. Those interested must see the answers given.

On block plans the premiated designs show the unexpected immediately. All devote the Bullocks Lane—Pegs Lane corner of the site to what one calls

a "farmyard" use; that is, garages and cycle sheds. Since the principal approach from Hertford is from here, it required bold men thus to straighten up the site, but it is a solution both economical and sensible.

The winner masks this "yard" by a projecting wing—at the same time, as the assessor recognizes, masking the main front as approached from Hertford. The winners indeed have been bold throughout. Their plan at ground floor level is a horse-shoe, the gap being closed by a loggia, thus interrupting the complete circulation once considered so necessary; the council members' cloakrooms are separated from the council chamber by the principal vestibule of the building, and the committee rooms are on a different floor.

But, by and large, the winners' adoption of a big central court was

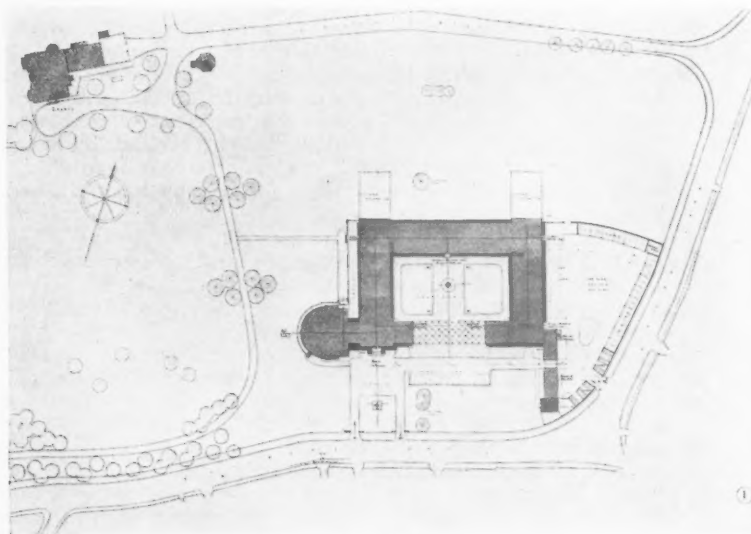
the best solution, the best all-considered compromise, submitted; such is the winning plan in all competitions. The council chamber is well placed out of the way of the everyday work of the building, as it should be, and the remaining accommodation well arranged. The elevations are satisfactorily simple, with the possible exception of the main entrance treatment, which seems somewhat over-elaborate.

Of the second premiated design there would not appear to be much to be said which is not better explained by the plans. In general outlay it is similar to the winner's, and has particularly pleasing elevations. As with the winner, sacrifices have had to be made in order to keep to the general single court plan; in particular, the committee rooms of the council suite are on the first floor, while the members' retiring rooms are in the basement.

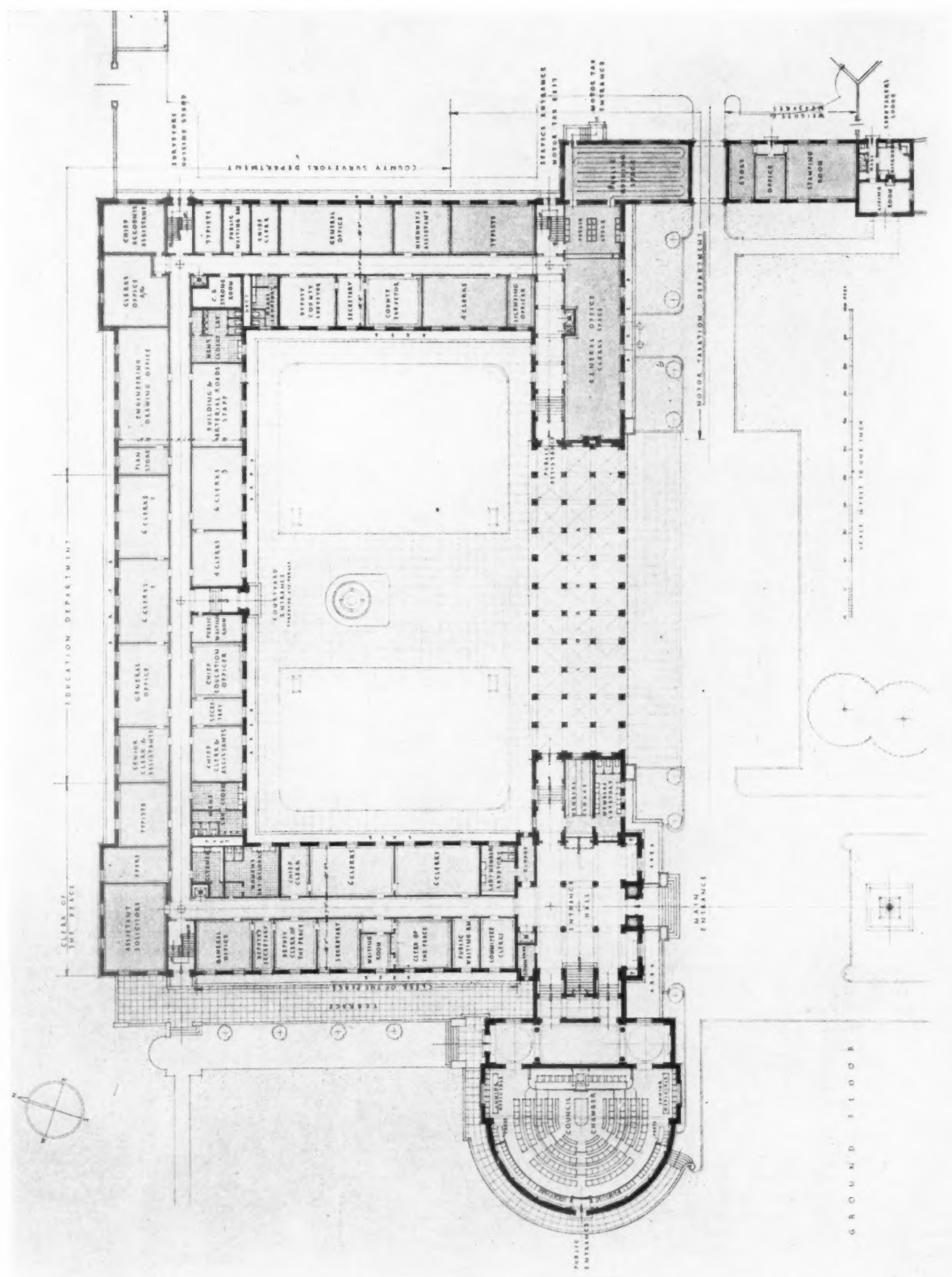
The two third premiated schemes abandon the quadrangle plan in favour of open asymmetrical plans. And here it must be admitted that much of the interest of Messrs. Connell, Ward and Lucas's scheme lay in examining how a firm usually so resolutely progressive would react to tiles and brick and stone facings. They do it superbly, and their plan, save for an unusually spacious foyer, has a great deal to commend it. Elevationally it is also good, even if the tower can barely be said to be within the limits of the "small tower or turret with clock" allowed by the Answers to Questions.

Mr. Grey Wornum's scheme groups the council chamber admirably, but its plan shape does not seem entirely happy. This scheme is also well treated externally.

So much for the fortunate schemes. That in this review their weak points have been suggested rather than their good, must not be taken to mean that others had not greater faults. But the

*Site plan.*

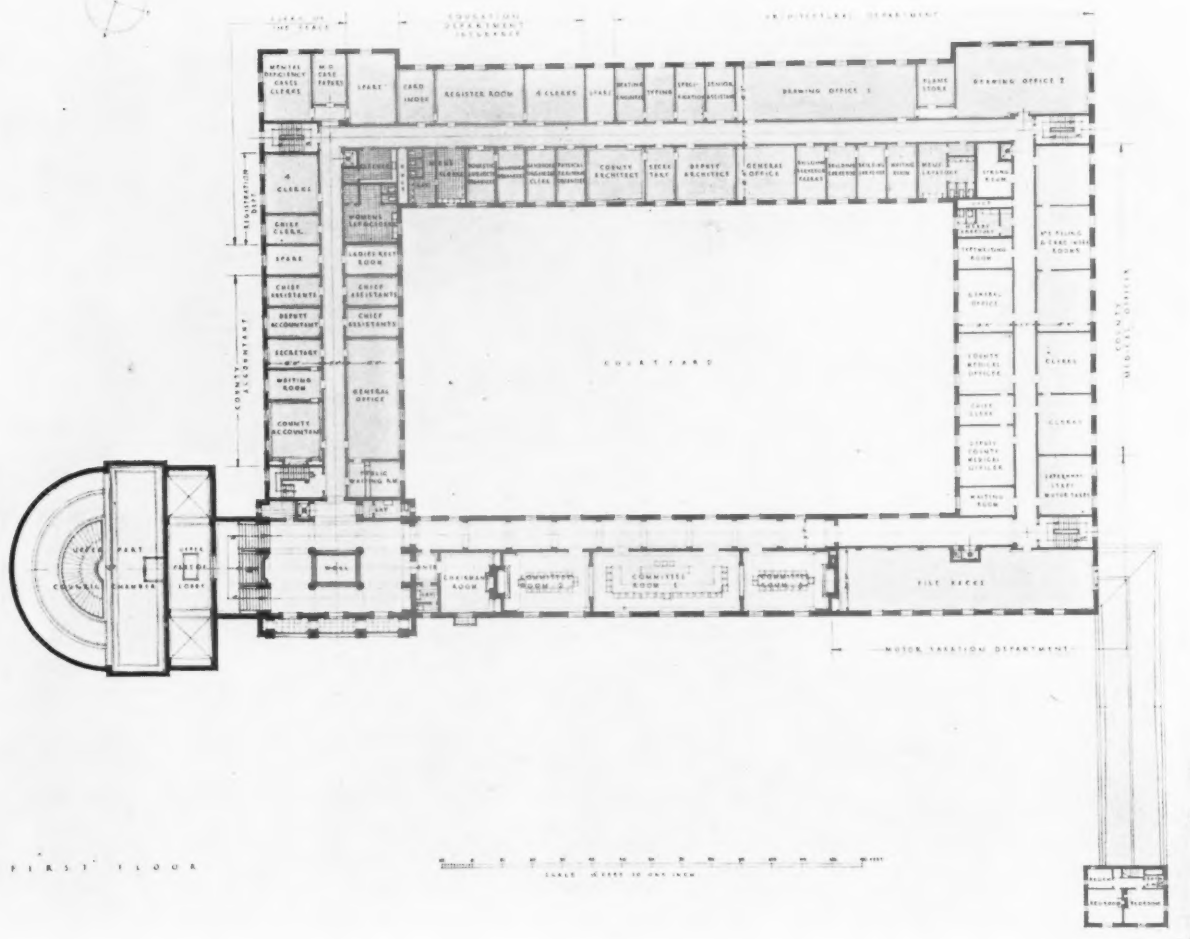
## OFFICES, HERTFORD: WINNING DESIGN



*Ground Floor Plan.*

*B R J A M E S , B R W A T E R S A N D P I E R C E*

## COMPETITION FOR PROPOSED CENTRAL



First floor plan.

good points of the others are not illustrated.

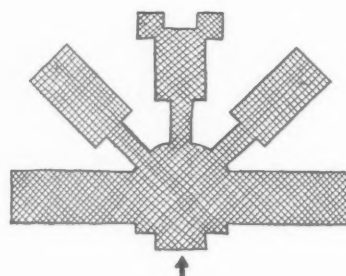
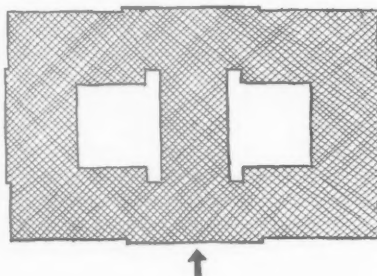
Other solutions, as has been mentioned, were many, both symmetrical and otherwise. A common plan was the "Worthing" type, which on so open a site may be regarded as obviously unsuitable. Of the rest most must have failed by reason of their complication. In all competitions the relative simplicity of the winning scheme remains the only constant factor.

The total estimated cost of the winning schemes were: £153,997; £133,278; £169,280 (Connell, Ward and Lucas), and £141,011 (Grey Wornum)—1s. 7d. being the average rate per foot cube. The total cost of most schemes fluctuated between £130,000 and £170,000. Finally the cost of a scheme submitted from Canada deserves mention. This scheme, ambitious in elevation but not unduly so in plan, had accompanying it a total estimate of £422,000, but whether or not this was a misprint for

dollars could not be discovered in the time available.

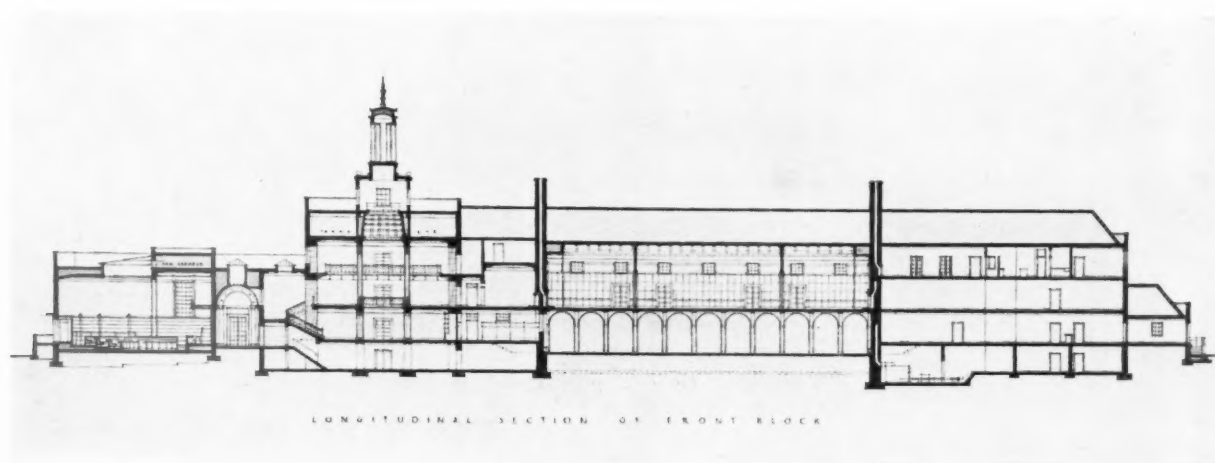
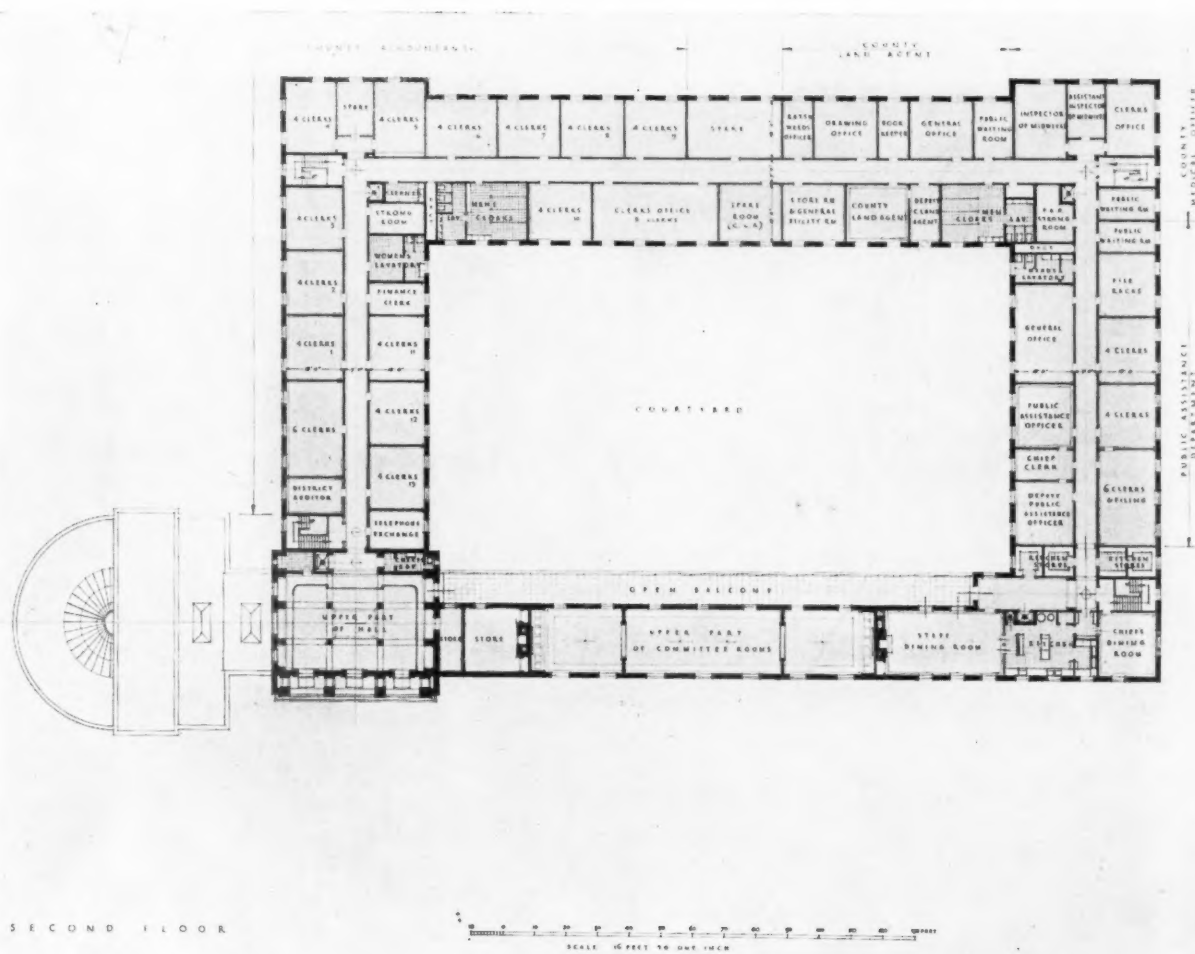
The Hertfordshire County Council have been well rewarded for the competition they promoted, and the eagerness with which competitors have used the freedom conferred by the large size of the site to try out so many differing

solutions should not go unregarded. If all possible freedom for competitors can become the aim of each assessor in drawing up conditions it will not be long before the competition system justifies the best hopes of those that believe in it; and those hopes are very large.



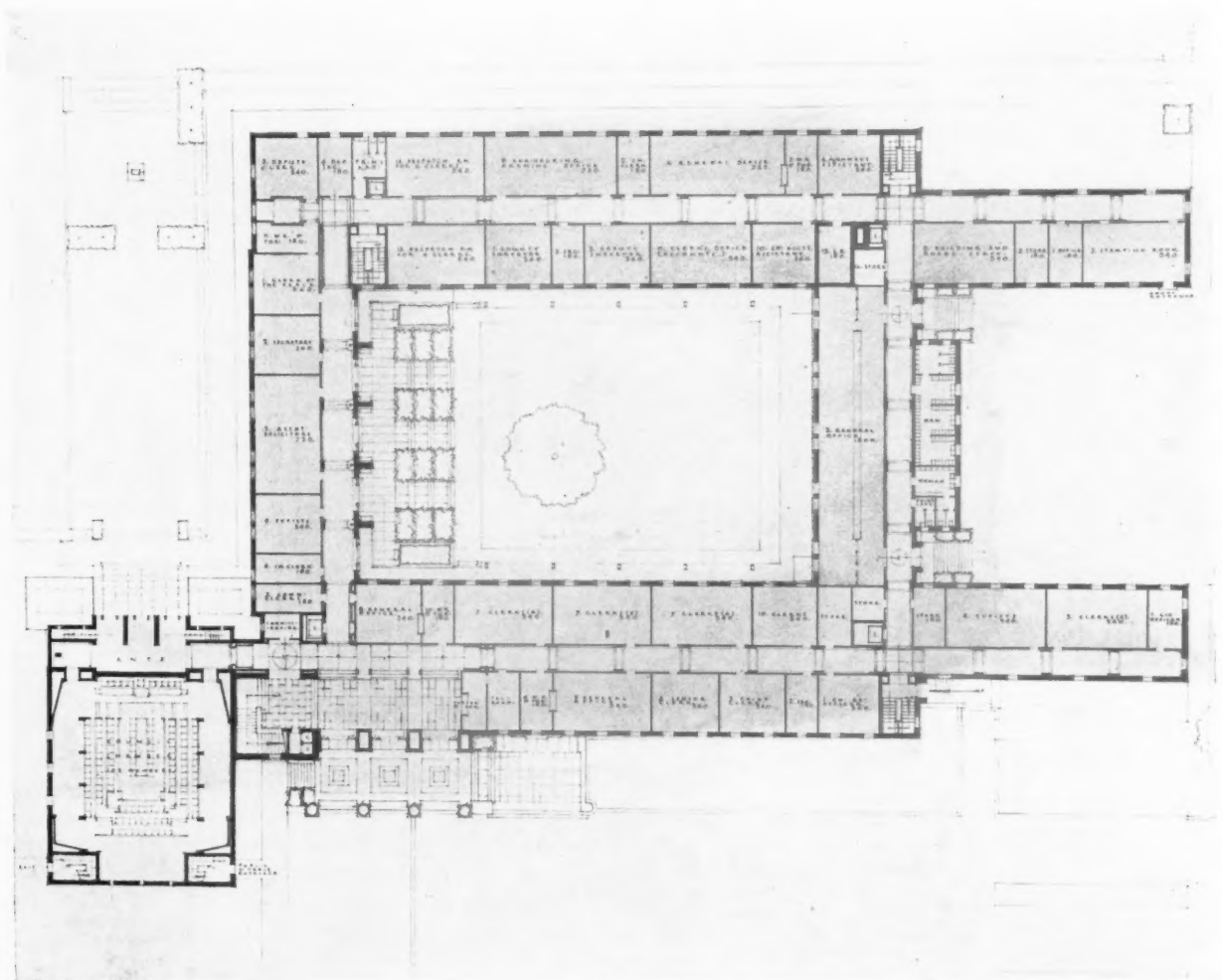
Sketch Block Plans: left, design submitted by Elcock and Sutcliffe; right, by Hutchinson and Paine.

O F F I C E S ,   H E R T F O R D :   W I N N I N G   D E S I G N



*B Y J A M E S, B Y W A T E R S A N D P I E R C E*

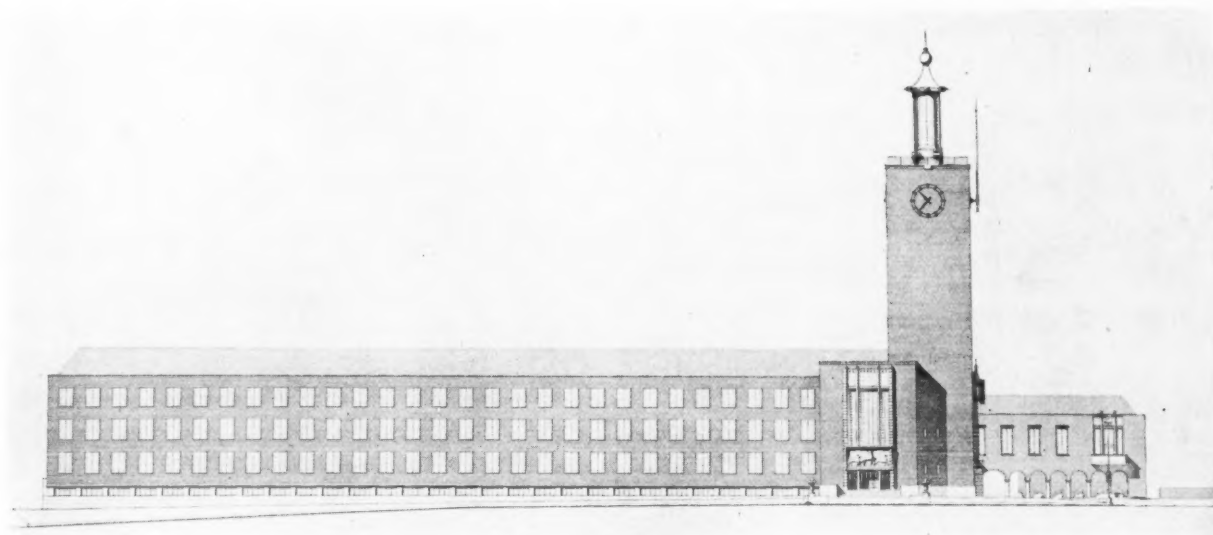
## COMPETITION FOR PROPOSED CENTRAL

*The main elevation.**Ground floor plan.*

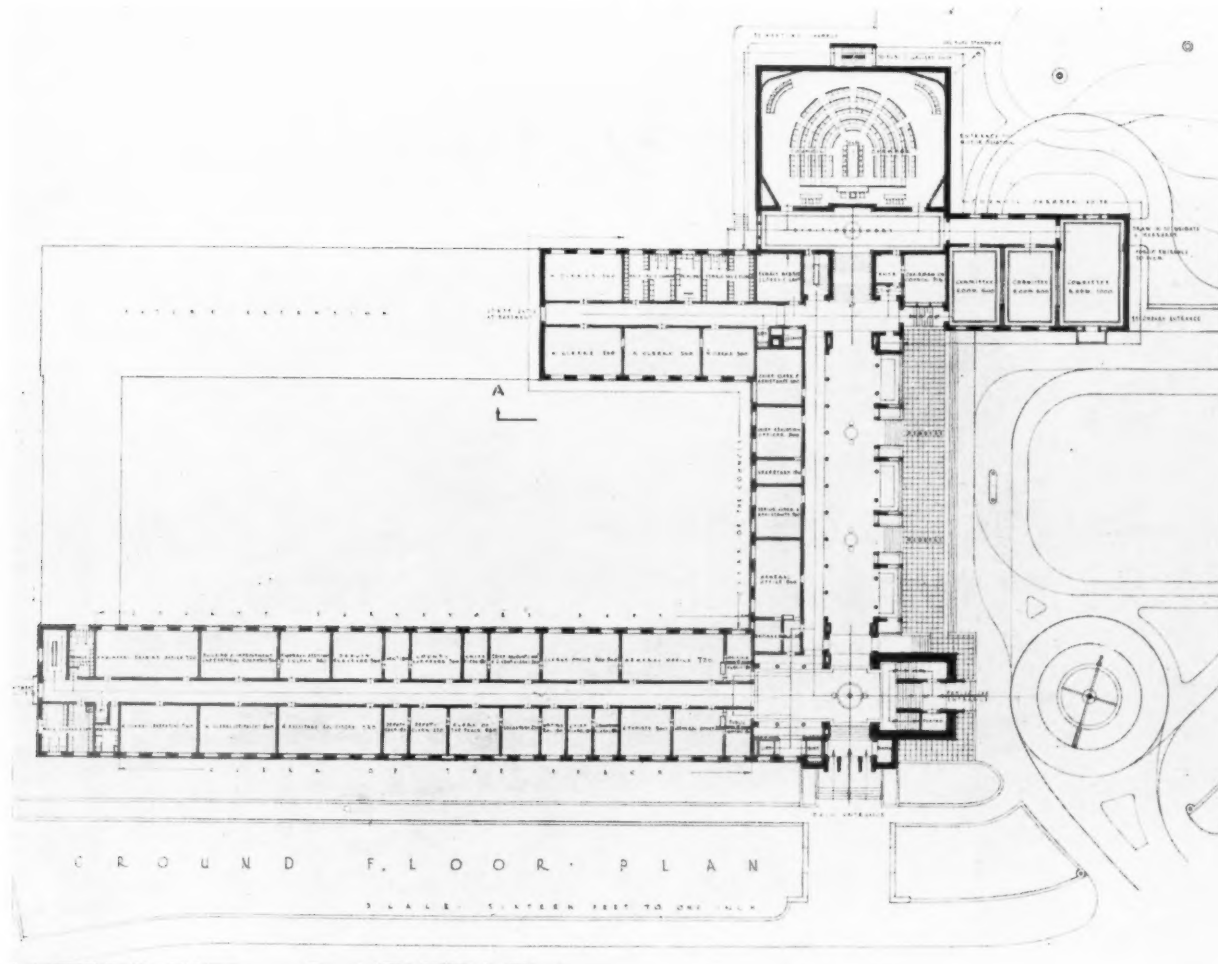
D E S I G N P L A C E D S E C O N D : B Y  
S C O T T , S H E P H E R D A N D B R E A K W E L L



# OFFICES, HERTFORD: PREMIATED DESIGNS

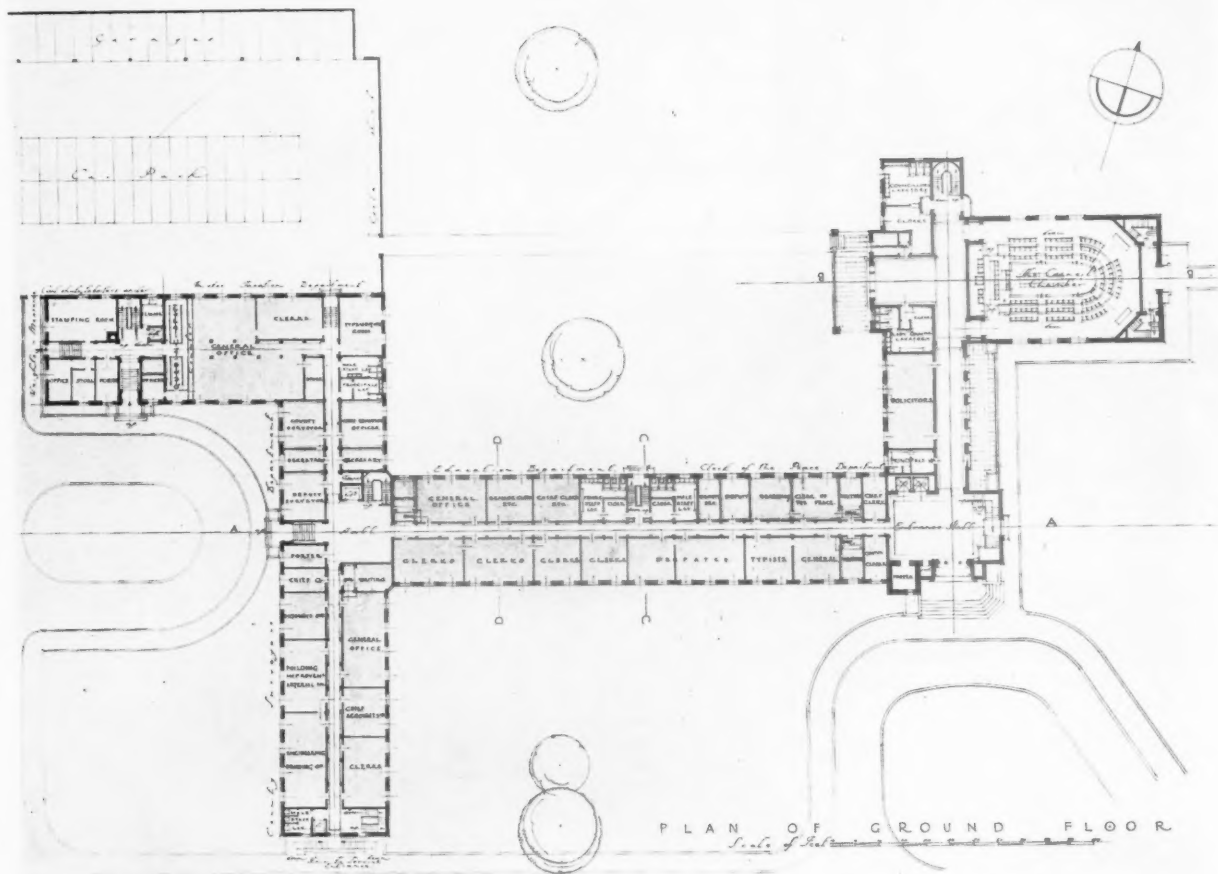
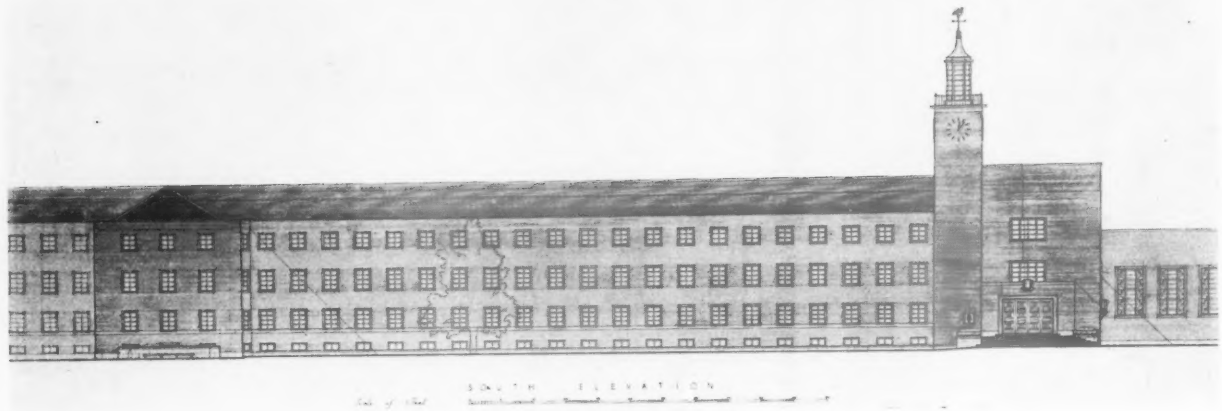


Main elevation.



DESIGN BRACKETED THIRD: BY  
CONNELL, WARD AND LUCAS

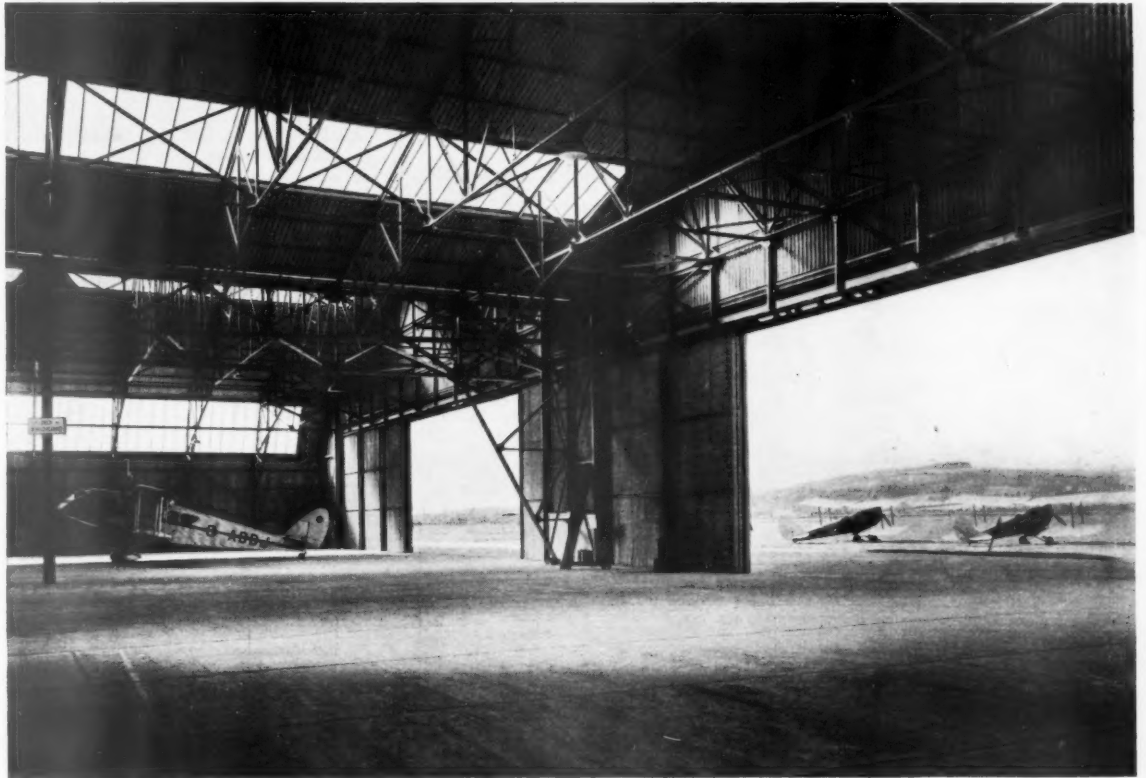
## COMPETITION FOR CENTRAL OFFICES, HERTFORD



D E S I G N    B R A C K E T E D    T H I R D :  
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# WORKING DETAILS : 351

HANGAR • THE SHOREHAM AIRPORT • STAVERS H. TILTMAN

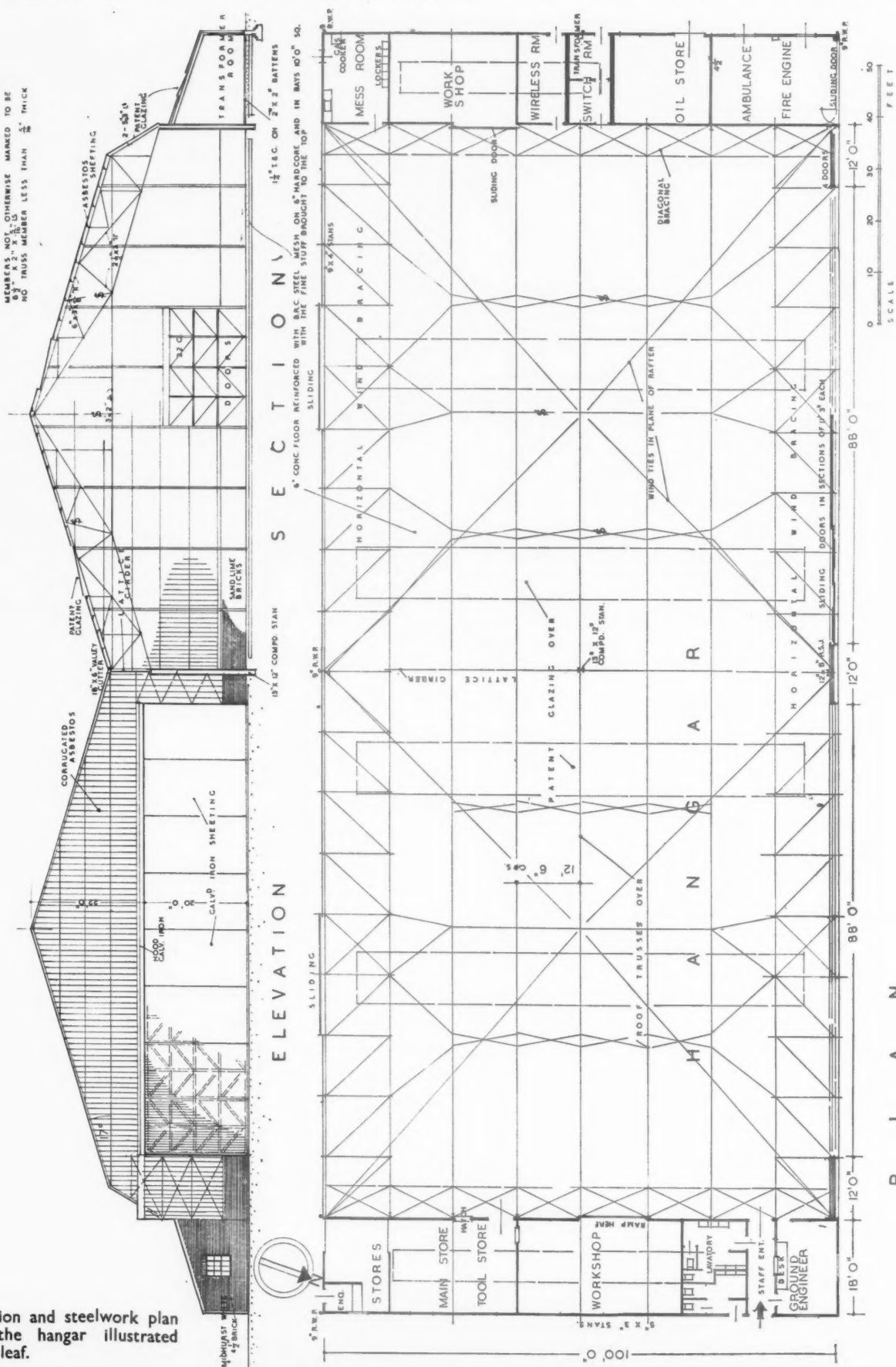


The hangar illustrated above has two sliding doors 88 ft. wide, each in 8 sections 11 ft. 3 in. wide and 20 ft high. The roof and gables are covered in asbestos-cement corrugated sheeting with panels of patent glazing. A section and a steelwork plan are shown overleaf.

# WORKING DETAILS : 352

## HANGAR • THE SHOREHAM AIRPORT • STAVERS H. TILTMAN

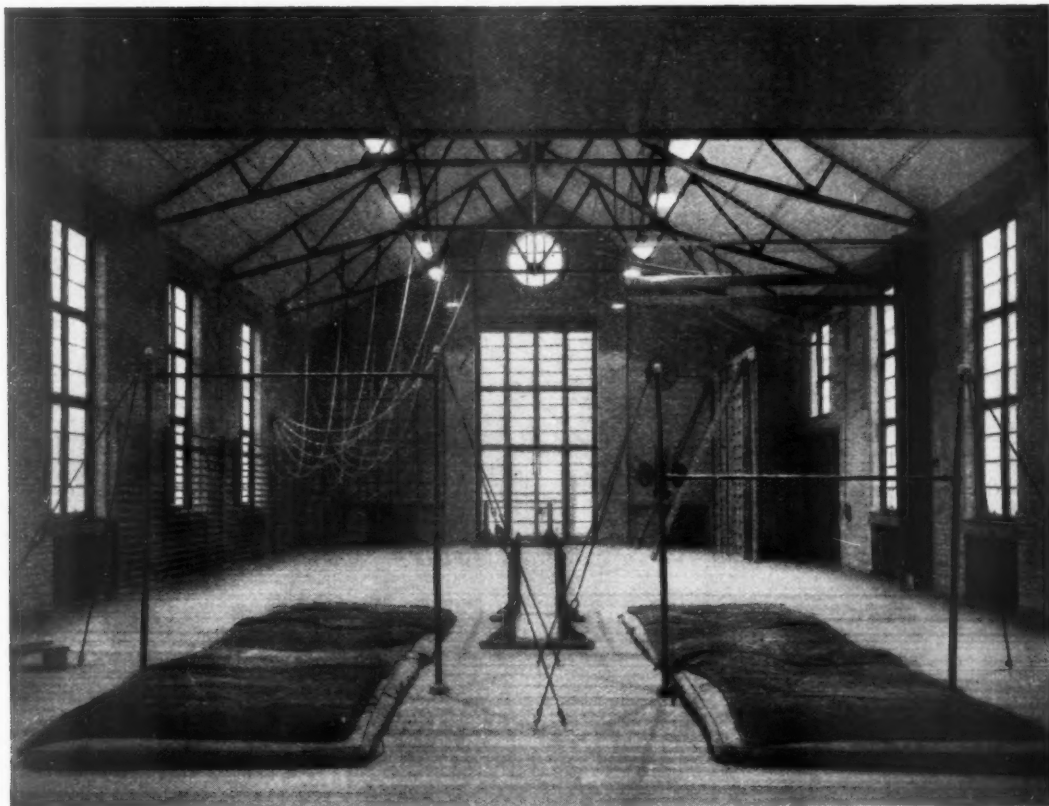
HORIZONTAL WIND LOAD = 30 LBS. SQ. FT.  
VERTICAL WIND LOAD = 11 " " "  
STEELWORK & COVERING " " "  
MEMBERS NOT OTHERWISE MARKED TO BE  
8 1/2" X 2" X 1/4"  
NO TRUSS MEMBER LESS THAN 1/2" THICK



Section and steelwork plan of the hangar illustrated overleaf.

# WORKING DETAILS : 353

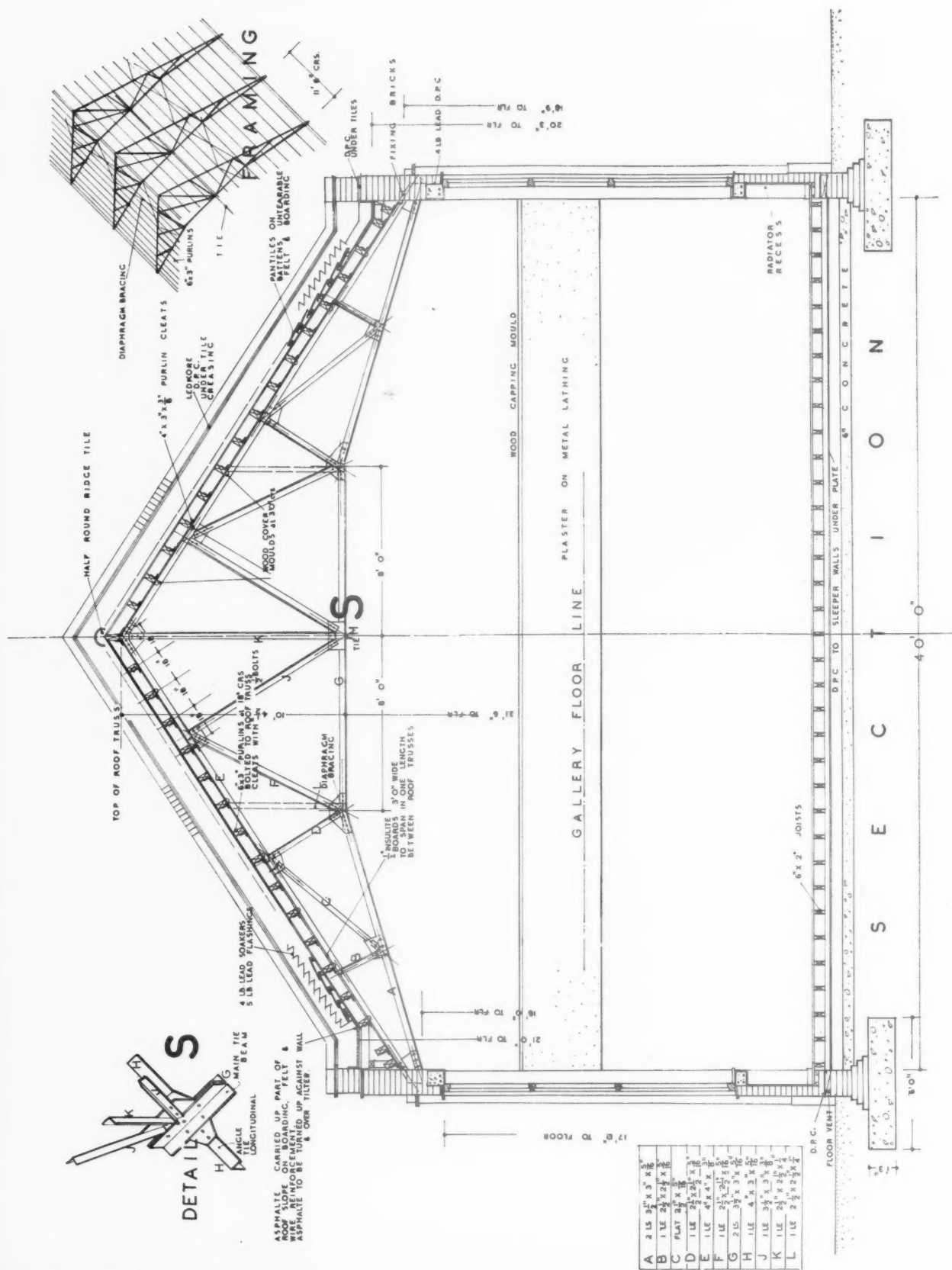
GYMNASIUM • BEDFORD SCHOOL • OSWALD P. MILNE



The roof of the gymnasium illustrated above is carried on three steel trusses spaced at 11 ft. 6 in. centres, with diaphragm bracing and a span of 40 ft. The photograph is taken from beneath the gallery, which runs across one end of the hall. A section and details are shown overleaf.



WORKING DETAILS : 354  
GYMNASIUM • BEDFORD SCHOOL • OSWALD P. MILNE



Section and details of the gymnasium illustrated overleaf.

## THE SHOREHAM AIRPORT



D E S I G N E D    B Y  
S T A V E R S    H .  
T I L T M A N

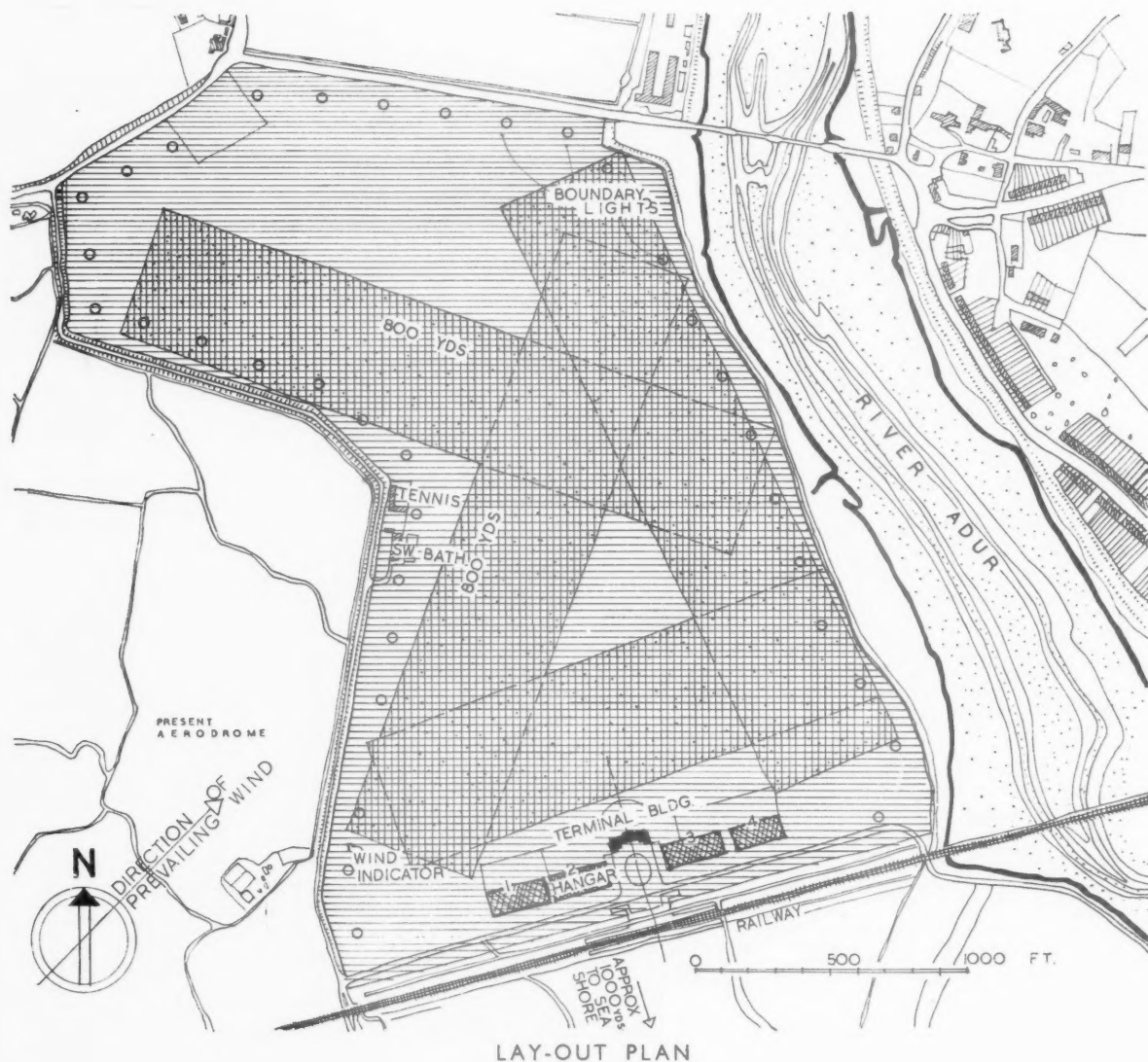
**GENERAL PROBLEM.**—The general purpose of the scheme was the provision of a terminal building to house the various accommodation required for a modern airport—including administration; customs and immigration; traffic and booking offices; restaurant and kitchens; club rooms; lecture room; medical officer's quarters; control tower; offices for operating companies; emergency sleeping rooms; and committee room for the administrative committee. In addition, there is a general hangar, and several private hangars.

**CONSTRUCTION.**—The building is steel-framed on an R.C. raft, and the outer walls are generally of 14 in. brick with R.C. canopies, etc. The floors and roofs are of precast R.C. and filler joist construction, the roofs being finished with asbestos-composition slabs. Internal partitions are of composition block. The elevations are cream cement rendered, and windows are of steel casement type, with decorative treatment and balustrades of wrought iron.

The photographs show: above, a general view of the club house from the west; right, a detail of the elevation to the flying ground.



## THE SHOREHAM AIRPORT:



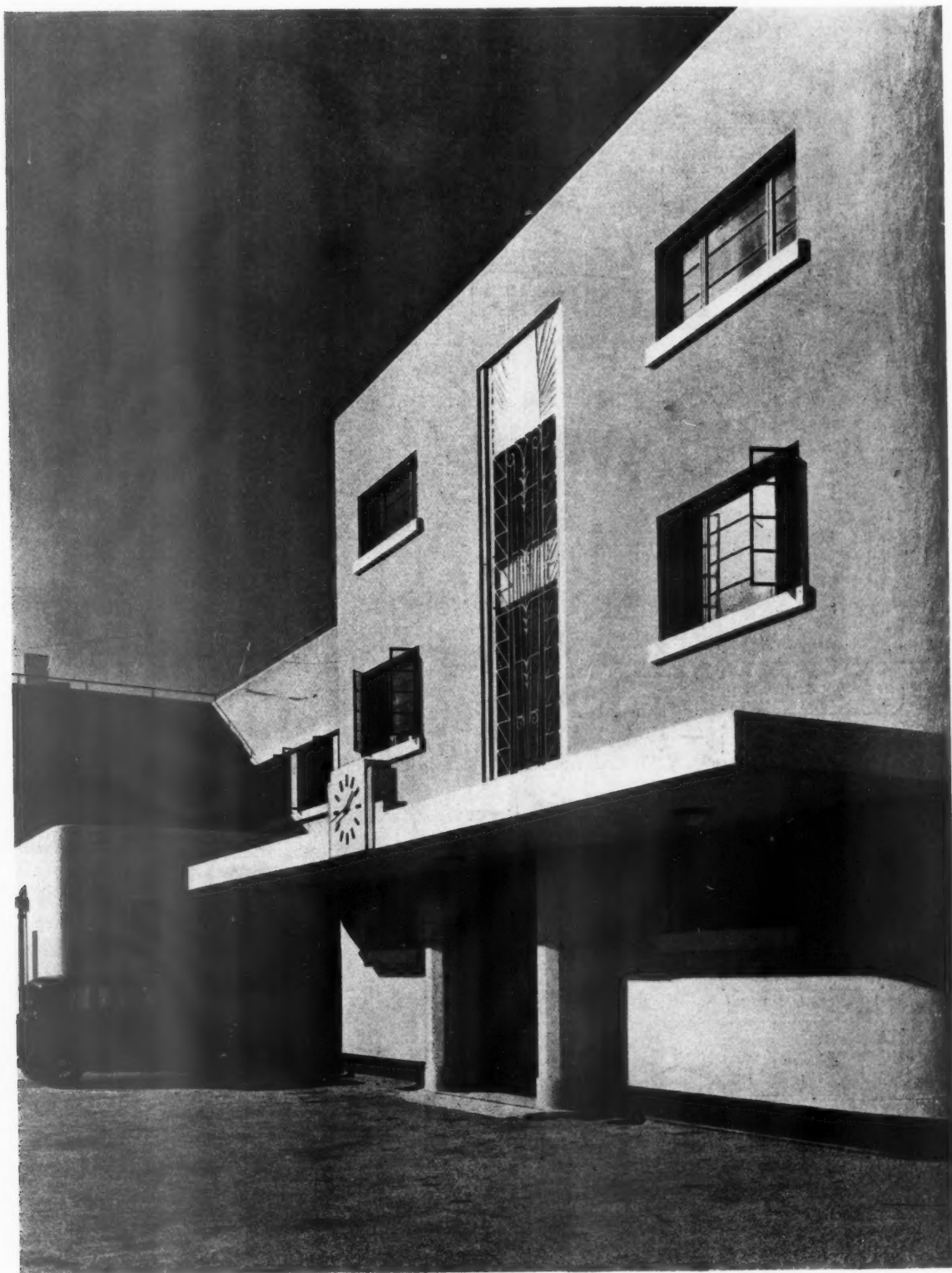
**THE SITE.**—The situation of the airport is sufficiently near the towns of Brighton, Worthing and Hove to serve conveniently as their flying centre, and the site, being absolutely level, is particularly suited for its purpose. The airport is about half way between Brighton and Worthing, and the airport railway station adjoins the site, as also does the main road carrying the Brighton-Worthing bus services. A considerable amount of preparation of the landing surface was necessary, streams having to be diverted underground and the ground drained, ploughed, levelled, seeded and consolidated to withstand a pressure of two tons to the square foot. The total area of the airport is about 140 acres.

The buildings are placed at the south end of the site, so that,

from the landing ground side, all flying operations can be seen without the sun shining directly into the eyes.

**SPECIAL EQUIPMENT.**—A fog line (a white line 2 feet broad along the longest run of the ground), and a smoke wind indicator are installed on the ground. The boundaries of the airport are illuminated at night by amber-coloured lights. An illuminated wind-indicator is installed, and a neon flashing beacon is on the main hangar. Buildings, etc., around the airport are outlined with red obstruction lights. A portable floodlight can be plugged in at any corner of the ground so that aircraft may land down the beam in any wind.

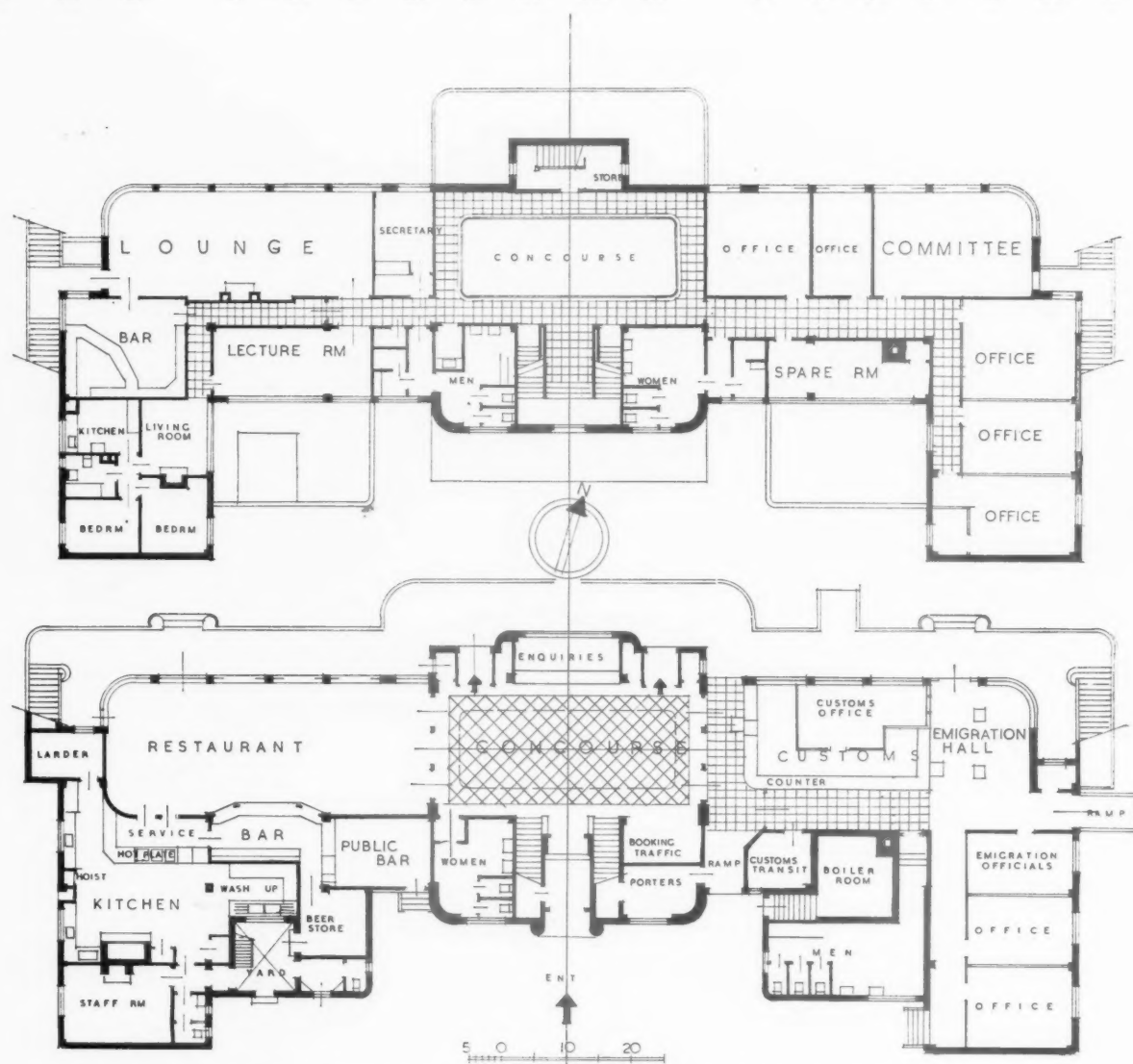
B Y S T A V E R S H . T I L T M A N



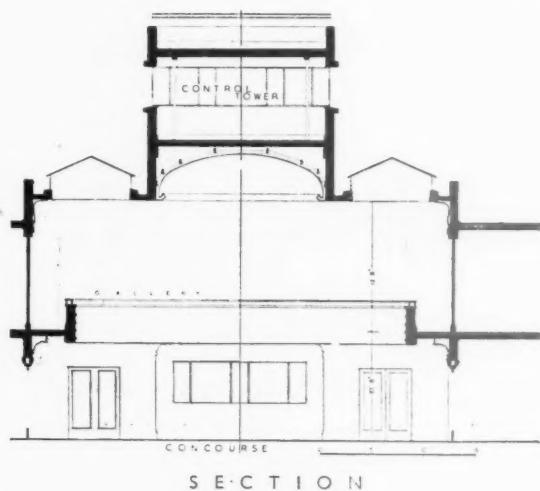
*A detail of the main entrance to the club house.*



## THE SHOREHAM AIRPORT:



THE CLUB HOUSE: GROUND AND FIRST FLOOR PLANS

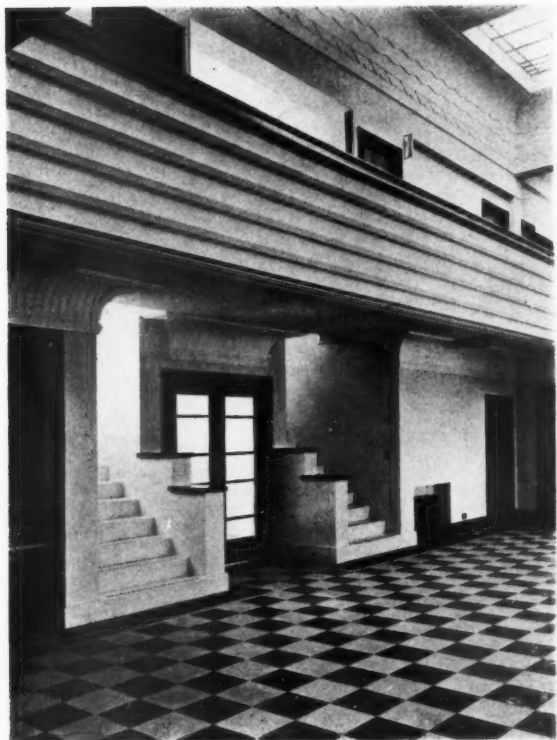


SECTION

PLAN.—The plan disposition of the terminal building has been governed by the necessity of making each department as self-contained as possible. The general concourse is centrally placed, flanked by the restaurant and customs on the ground floor, and by the flying club premises and administrative offices on the first floor. The secretary's flat adjoins the club premises, and three emergency sleeping cubicles are provided on the second floor, together with their own bathroom and w.c. The control tower is reached from the gallery, and is quite cut off from the general public. The public has access to the roof, which is surfaced for use as a grandstand.



B Y S T A V E R S H . T I L T M A N



*For the construction and details of the main hangar, see pages 629-630. The photographs show : above, the entrance to the main hangar ; right, the concourse of the terminal building.*

## THE SHOREHAM AIRPORT



DESIGNED

BY

STAFFERS H.

TILTMAN



**INTERNAL FINISH.**—Decorative finish is mainly restricted to the use of fibrous plaster for the wall treatment, and Australian walnut for the joinery of the principal assembly rooms. Elsewhere joinery is of oak and teak, and walls finished with a patent distemper on plaster. The floors generally are finished in  $\frac{1}{2}$  in. thick wood mosaic; the corridors being in green-jointed Austrian oak, the restaurant in Burma padauk and ebony, the lounge in patterned Austrian oak, the bar in red beech, and the offices in teak.

**SERVICES.**—Hand lifts are provided from the kitchen to club accommodation and the roof. Heating is by radiators on the low pressure accelerated system from thermostatically controlled and oil-fired boilers, which also provide hot water from a calorifier. House telephones and synchronized clocks are provided throughout the building. The kitchen is equipped throughout with gas cooking apparatus. Service pipes are kept, wherever possible, within ducts below the ground floor, which are large enough for a man to carry out inspection and renewal within them.

**COST.**—The final cost for the principal contract—the terminal building, main and lock-up hangars, and concrete aprons—amounted to £26,800. The electrical contract, including landing ground equipment, amounted to £3,230. Road making cost £4,630, and preparation of landing ground, £4,730. The total cost of the work was approximately £45,000, and the cost of the site was £10,000.

Above, the flying club lounge on the first floor; left, the club bar.



Inigo Jones. From a Medallion.

## L I T E R A T U R E

### S O M E P R E D E C E S S O R S

[By H. MYLES WRIGHT]

*Six Architects.* By Sir Reginald Blomfield, R.A.  
London: MacMillan. Price 6s.

SINCE the days when his books upon the Renaissance created for the buildings and personalities he described much more than the enthusiasm demanded by examinations, some fresh aspect of Sir Reginald Blomfield's versatility seems always to have been ready for and worth our interest. To be more than distinguished as an architect, scholar, draughtsman and writer, would seem enough of scope for most of a population possessing a highly developed veneration for specialists. But not for Sir Reginald. No architect today can be unaware that Sir Reginald Blomfield is a person of strong opinions, well able to express them; and that amongst those opinions are some relating to what, for want of a better term, is usually called modern architecture.

That such aspects of a many-sided author are introduced into a notice of *Six Architects* is not from any craving to exhaust its length in snapping at Sir Reginald's heels upon a cause imported for the purpose. It is because these opinions are woven deeply to form a continuing pattern through the fabric of the book.

*Six Architects*, perhaps because of these things, is a peculiar book. The six essays it contains are based upon lectures to students, which may in part explain the difficulty of forming any single impression from their reading.

And the rest of the difficulty may lie in that, in one place or another, all sides of the author's personality emerges from his studies of the personalities of his subjects. But, whatever the reason, the grill remains obstinately mixed; part proselytising, part boisterous, part serious, scholarly and critical.

The subjects of the essays are Palladio, Bernini, Inigo Jones, François Mansart, the younger Gabriel, and Wren; two Italian, two French, and two English architects. Sir Reginald's aim has been, he says, to disentangle the personality of these architects, to present some idea of the sort of men they actually were, so far as one can form any opinion from their work and the records that exist. It is a rich and diverting task that the author set himself, and if one were to have searched all England for the most appropriate person to carry it out, the inevitable choice would have been three-quarters of Sir Reginald Blomfield.

But, for better or for worse, the other quarter came too. And as, with a terminology lusciously diverting and surprisingly widely ranging, the author now and then uses his cat-o'-six-tails upon those whose opinions upon architecture do not quite tally with his own, it is impossible to decide whether or not there is a gleam in his eye.

If there is felt on reading the first page of *Six Architects* something of regret that these essays were not entirely by Sir Reginald as scholar alone, it cannot be denied that the book as it is more immediately stimulating.

The first study, that of Palladio, begins bluntly with the statement that it is hoped that the essays may snatch some sticks from the burning. The description of this burning, this modernism,

must be read in full in order to bring out its value as a warning; but it is certainly very unpleasant. And then, surprisingly, the author summarizes his views on traditionalism, which he claims is the same thing as true modernism: "... It takes account of changing needs, of increased knowledge and wider outlook, of the new problems that present themselves with every generation." That indeed is the true modernism, excellently put.

But Sir Reginald is a many-sided man. A little later there comes this passage, of the Villa Capra:

"It is in its way a masterpiece of monumental design. It is just a square block with a shallow dome over the centre and projecting porticoes with wide flights of steps on all four sides, but its beautiful proportions, the fine reticence of its detail, and the rhythm that governs every part of the design of the exterior, make it the best thing of its kind ever done. It is a standing example of what may be done with simple means where guided by great knowledge and fastidious taste, in absolute contrast to the arid and ignorant design which under the guise of 'efficiency' and 'functionalism' makes the architectural efforts of the Modernist so hopelessly unattractive."

There it is. Today, there are those who can still admire such a creation as a beautiful *tour-de-force* whilst yet realizing that for the future no one is likely either to want or to be able to afford such a decorative belvedere, save a few so out of touch with the world around them as to be a positive menace to the state.

It would be unjust, however, to emphasize such passages unduly. The book is full of serious criticism and excellent description of the struggles, triumphs and defeats of our predecessors. For if architecture changes, architects always remain much the same. The early efforts of Bernini as sculptor, to deal with San Lorenzo, in which "the saint is lying comfortably on his gridiron in spite of the flames crackling underneath" joins with Ben Jonson's poor opinion of Inigo Jones's talents; "his twice conceived, thrice paid for imagery," to show that the greatest architects were once young and suffered from inappreciative contemporaries. In all his short convincing descriptions of professional jealousies and skilled sorting of architectural influences Sir Reginald Blomfield is superbly himself.

It may perhaps be due only to an unforgettable appreciation of his books on the French Renaissance that seem to make the essays upon Frenchmen the best of this collection. Certainly François Mansart lived in a royal time for the architecture of magnificence; at twenty-five he was designing monumental country houses, and was well under forty when he began the Château of Blois. When he undertook the designing of Maisons, one of the greatest houses of France, he did so on the condition that if he did not like what he had done he could pull down and alter as seemed fit. The final expenditure



upon the houses and grounds, all of which Mansart designed, was reputed to have been twelve million livres.

It must indeed be a poor-spirited architect who can read without a warmth very close to envy of a world so fantastic in its opportunity to those whose skill was great, or, perhaps then as now, whose swords were sharp.

Of Wren, Sir Reginald is more doubtful, holding him to be a man who triumphed by natural genius over lack of training, but triumphed we feel, only just. And it was, indeed, a terrible piece of wire pulling which resulted in Wren, at thirty-four years of age and with little or no training in architecture, being appointed Surveyor-General and Principal Architect for the rebuilding of the whole City. Moreover, that events fully justified the appointment, must no doubt have made the affair only more deplorable to the few architects of Wren's day.

The triumph of St. Paul's came at the end, and probably Sir Reginald is right in his explanation of it—that Wren was both a genius and, bringing a trained and appreciative mind to bear upon architecture, learnt his technique with astounding quickness as he built, and with equal quickness perceived and overcome his faults. But, late starter though he was, he more than justified his epitaph; there can be few higher tests.

*Six Architects* is professedly a personal book—a book of personal views on personalities. Therefore it is fair that Sir Reginald should state that architecture is a personal art, the products of isolated, individualist geniuses. There is a subtle flattery in this which must touch all architects closely and most of them will readily agree with it. But there still remains the oddness that at those varying times when the architectural achievements of many countries are now universally agreed to have been at their highest, architecture was collective, ubiquitous and anonymous. It is a solemn thought.

Lastly, in a personal book, no one can object to Sir Reginald expressing his opinion of "modern" architecture in more than round terms. With this opinion, the majority of his readers probably may agree. The small minority, who are compelled to plead guilty to "modernist" views, may, however, without being too captious, excusably feel some diffidence in allowing Sir Reginald to express their views for them, prior to their annihilation in the presence of youth.

It is stated more than once in *Six Architects* that the ambition of this minority is to wipe the slate clean and to start all architecture again. Nothing could be more untrue. To quote Sir Reginald himself, true modernism "takes account of changing needs, of increased knowledge and wider outlook,

of the new problems that present themselves with every generation."

This minority also admires the Queen's House at Greenwich, but it holds that since the architecture of today is changed in need, knowledge and outlook,

in materials, construction and equipment, the sincerest tribute to Inigo Jones does not lie in the reproduction of his façade, in whole or in detail, upon the front of contemporary structures.

## THE NEW HOUSING ACT

LOCAL housing authorities are already giving close attention to the new functions entrusted to them by the Housing Act which passed into law in August last. To assist them further the Minister of Health, Sir Kingsley Wood, has just issued an important set of explanatory memoranda outlining the scope and purpose of the Act and explaining in some detail the nature of their new duties and the best way of performing them.

These memoranda are not only designed to help local authorities responsible for putting the new Act into active operation; they will also be of considerable interest to everyone concerned in the direct and rapid abatement of bad housing conditions. Their main subject matter is directed to assisting local authorities in the planning and early initiation of the house-to-house survey on which positive ascertainment of the total need for action will be based, as well as in other important steps which are necessary to deal with the evil of overcrowding.

Meanwhile, proposals are already being submitted to the Minister for rehousing schemes to abate overcrowding which, even ahead of their more detailed survey, the local authorities know to exist from their general knowledge of their districts. Activity by some local authorities under the Housing Act, 1935, has, in short, already started, and actual building operations, the Minister has already stated, will not prejudice any claim to subsidy which local authorities may wish to submit at a later stage, if subsidy would otherwise have been payable.

There is abundant evidence that the local authorities appreciate the necessity of avoiding any diminution in the flow of clearance and rehousing work under the five-year slum clearance campaign which is now in active progress; and it is realized that the new campaign against the overcrowding factor in the housing problem will not be allowed in any way to retard the continuance of activity against the slum.

Five separate memoranda have been issued, which together cover the whole of the principal objects of the Act. The titles of the memoranda (obtainable from the Stationery Office) are as follows: A: *General Memorandum* (price 4d.); B: *The Prevention and Abatement of Overcrowding* (price 6d.); C: *The Redevelopment of Overcrowded Areas* (price 2d.); D: *Financial Provisions* (price 2d.); E: *Consolidation of Housing Contributions and Accounts* (price 4d.).

### A: GENERAL MEMORANDUM

The first Memorandum is general in character and describes the broad intentions of the Act, its effects on existing housing

legislation and the main alterations in present administrative procedure which are necessary to translate it into effect. Among other points it explains the modifications which have been made in the law governing slum clearance. Sir Kingsley Wood refers in some detail to the position of owners when property has to be taken or demolished. For instance, the Act of 1935 gives the Minister power, when a house though properly included in a clearance area or order as quite unfit for habitation has nevertheless been as well maintained as was practicable in the circumstances, to direct the local authority to make a special payment in recognition of the effort to maintain the house. Moreover, every owner of property included in a clearance order must in future be served by the local authority with a statement of the grounds on which his property was so included, at least two weeks before the Minister's public local inquiry is held; and no dwelling house can be included in a clearance order only on the ground of its congesting other properties without being in itself unfit—a new provision which ratifies what has been the Minister's administrative practice. Any owner who appears at the Minister's public inquiry in support of his objection may, if his property is condemned as unfit, obtain from the Minister—on making a written request to him—a statement of the grounds on which the property was so condemned. When an owner's land is taken compulsorily there will no longer be any reduction in the compensation paid to him because the land is to be used for working-class rehousing.

Attention is called to the position of retail shopkeepers and others affected by clearance operations, and Sir Kingsley Wood states that he hopes every local authority will exercise the power of making reasonable allowances in suitable cases, and that he is prepared to sanction loans to cover expenditure by a local authority in the exercise of their powers under the provisions of the Act.

The Minister also calls attention to the new facilities and arrangements for the work of Housing Associations in conjunction with the local authorities, and to the fact that Section 29 of the Act now enables advances to be made to them by the Public Works Loan Board to a maximum of 90 per cent. of the value of houses to be erected by them. Sir Kingsley Wood also commends the scheme set up by the Act empowering local authorities to establish a Housing Management Commission, and states that commissions of this type would "secure continuity of policy and would extend the scope of professional house management which experience has shown is so advantageous both from the point of view of improving the conditions of the



tenants and from that of preventing the depreciation of the property."

#### B. : THE PREVENTION AND ABATEMENT OF OVERCROWDING

The second memorandum deals in detail with the measures which will be taken throughout the country to abate overcrowding and to enforce the new maximum standard of occupation of any dwelling house which the Act makes it a punishable offence in future to infringe. It explains the procedure by which every local authority will now proceed to ascertain, by survey of all the dwelling houses in their area, the exact extent and situation of overcrowding and the amount of new accommodation requisite to enable it to be finally abated. The application to the individual house of the new formula of overcrowding is well illustrated by examples, and the responsibilities of the local authority to take proceedings when the formula is exceeded—together with the statutory liabilities of owners and tenants to see that it is not exceeded—are explained in summary.

Sir Kingsley Wood explains that overcrowding existing at the appointed day is not an offence until alternative accommodation has been offered and refused, but the creation of overcrowding after the appointed day in a house where it does not exist on the appointed day would be punishable. It is pointed out also that safeguards are provided to cover the case where a family living in uncrowded conditions becomes overcrowded in course of time owing to increases in the number or ages of the children. Attention is also called to the temporary modifications which are permitted in connection with the circumstances of holiday resorts when "it will be necessary for the local authority to exercise special care." So far as prosecutions under the Act are concerned, the Minister says he "is confident that local authorities can be relied upon to use their powers of prosecution with due discretion." So far as the normal procedure is concerned, it will "doubtless be to assist the overcrowded family to find other and more suitable accommodation, and, if persuasion fails, to secure an order for their eviction." There are attached to the memorandum model forms and records in which the detailed information obtained by the local authorities' inspection of houses in their district may be collated and registered. The duty of the local authority to take steps, so far as other agencies are not already doing so, to secure the provision of the additional accommodation needed to make the enforcement of the new standard a reality is also emphasized.

#### C. : THE REDEVELOPMENT OF OVERCROWDED AREAS

The third memorandum amplifies the rehousing aspect of the local authorities' duties, by explaining their new power to schedule the "hard core" areas in towns for drastic redevelopment, when lesser remedies are unlikely—as it is recognized in many of the built-up urban areas they must be unlikely—to provide effective remedy. The intimate relation between redevelopment and town planning is emphasized and the nature and treatment of the typical "redevelopment area" is described; the several stages of declaration of the area,

publication of proposals, inquiry by the Minister and execution of the confirmed redevelopment order are all fully explained, together with the basis of compensation to private interests affected by the exercise of compulsory powers.

Sir Kingsley Wood emphasizes the importance of proper planning. He states that the provisions in the Act "will arm local authorities with the necessary power to clear their congested areas and redevelop them on modern lines," and that it is essential that the Housing Committee and the Town Planning Committee should work in the closest co-operation. It is also explained that owners may submit schemes for the redevelopment of their own property. So far as the erection of flats for rehousing is concerned, it is stated that the Minister would only be prepared in exceptional circumstances to approve of blocks of flats exceeding five storeys in height, and that he considers it to be most desirable that each flat should, so far as possible, be equipped with a private balcony.

#### D. : FINANCIAL PROVISIONS

The fourth memorandum is concerned with the financial provisions of the new Act and the new Exchequer subsidies which will be available in connection with the work of rehousing those displaced from overcrowded dwellings. Each of the three forms of subsidy to be made available is described: the "flats" subsidy, when rehousing has to be provided on expensive sites, in blocks of flats of three or more storeys; the special rural subsidy, where accommodation has to be provided for the agricultural population to relieve overcrowding; and the subsidy payable for rehousing on normal sites where the conditions of the district and the burden likely to be imposed upon it necessitate Exchequer assistance.

So far as rehousing on central sites is concerned, the Minister says that generally it is uneconomic to erect cottages on central sites; but he also points out that land is usually available within easy reach of industrial parts, and that it is preferable for the population, in such circumstances, to be accommodated on cottage estates.

Attention is particularly called to the special claims of rural districts so far as the housing of the agricultural population is concerned, and to the special subsidies which will be given for this purpose.

#### E. : CONSOLIDATION OF HOUSING CONTRIBUTIONS AND ACCOUNTS

The fifth memorandum explains the new consolidation of local housing accounts, the object of which is to free the local authorities from the diverse special conditions which were still attaching to the different subsidies, and thus affecting the rents of subsidized houses, under earlier Acts, and to enable them to administer the whole of their housing revenue from subsidy, rate contribution, rents and all sources, to the best advantage throughout the district as a whole. The special conditions hitherto applying are, it is pointed out, replaced by general obligations as to letting to be observed by local authorities in respect of their houses as a whole. "Each local authority" says the Minister "should review, in the light of these general obligations, the rents at present charged for their houses. It will

be seen that the Act contemplates the fixing of standard rents in relation to the general level of working-class rents in the locality. It will, however, be open to local authorities to fix differing standard rents for different types or groups of houses, and to grant rebates from the standard rent in particular cases according to the circumstances of the tenants. A continuous supervision of rents should be exercised so as to ensure that any alterations justified by changes of circumstances are made from time to time." In relation to rehousing, "Reasonable preference" Sir Kingsley Wood points out "is to be given to persons occupying insanitary or overcrowded houses, to large families, or to persons living under unsatisfactory conditions."

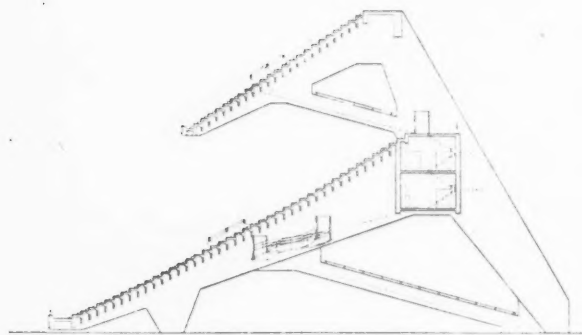
The Memoranda are being issued to local authorities with a Circular and other documents, including Provisional Regulations entitled "The Housing Acts (Overcrowding and Miscellaneous Forms) Provisional Regulations, 1935." These Regulations prescribe the various forms (such as the form of licence for temporary overcrowding) which a local authority will use when administering the provisions relating to overcrowding. The Regulations also contain the prescribed form of summary of the provisions relating to overcrowding which after a certain date must be inserted in the rent books of all working class houses. The date for this purpose will be six months after a day to be fixed later by the Minister.

#### INTERNATIONAL EXHIBITION OF CHINESE ART

In connection with the International Exhibition of Chinese Art, which opens at Burlington House on November 28, the Royal Academy has arranged for a series of lectures on various aspects of Chinese Art, to be given in the lecture hall of the Royal Society, Burlington House. Sir Percival David, Director of the Exhibition, will open the series by a lecture on "The Chinese Exhibition," at which H.R.H. The Crown Prince of Sweden, who has lent a number of objects from his collection, will preside, on Friday, November 29, at 5 p.m. The Lectures will be continued at this hour on subsequent Fridays throughout the course of the Exhibition, except during the Christmas holidays.

Other lecturers are Mr. Leigh Ashton, Mr. Laurence Binyon, Mr. R. L. Hobson, Mr. A. Kendrick, Mr. Bernard Rackham, Professor Seligman and Professor W. Perceval Yetts. Distinguished foreign authorities on Chinese art will also lecture, including Dr. F. T. Cheng, Commissioner of the Republic of China for the Exhibition; Professor Paul Pelliot, the distinguished French archaeologist; Professor Langdon Warner, of Harvard University, and Professor Yukio Yoshino. They will deal with the exhibition as a whole, and also such special subjects as sculpture, painting, ceramics, textiles and bronzes.

Other places where lectures will be held include the Courtauld Institute, The Royal Society of Arts, The Royal Institution, The Royal Central Asian Society, and the India Society. Lectures will also be given throughout the provinces.



## PERIODICALS

### AUGUST AND SEPTEMBER ANTHOLOGY

#### AMERICA

##### *American Architect*

(Monthly, \$1. 572 Madison Avenue, New York)

**AUGUST.** Private houses at Miami Beach: "Time-saver" standards on the design of r.c. beams, slabs and columns, with some good information and photographs of various types of surface finish.

September. Remodelling schemes by various architects, the first instalment of a very thorough series on textiles, and some useful data on kitchen sizes and lay-outs.

##### *Architectural Forum*

(Monthly, \$1. 220 East 42nd Street, New York)

September. The Central Park Zoo buildings; illustrations and lay-out plan with two pages of data on the minimum space requirements for keepers, fauna, the general public, and the mutual protection of each from the other. This month's international section deals with Finland; the examples illustrated are mostly fairly familiar to architects in this country.

##### *Architectural Record*

(Monthly, 50 cents. 115 West 40th Street, New York)

August. Competition designs for low-cost houses, forty odd pages of good data on various methods of pre-fabrication, and two useful check lists for small house heating and electrical equipment.

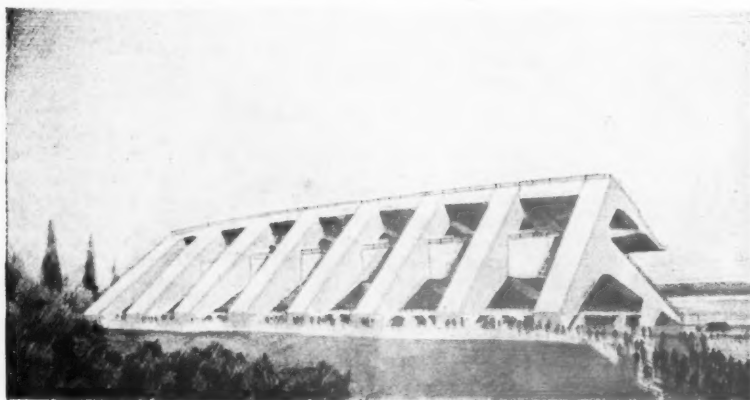
September. Portfolio of special building types, including a logical motor-coach terminal station in New York, several interior decoration jobs and a new school by Richard Neutra. A good statistical survey of school conditions with suggestions for reconstruction.

##### *Pencil Points*

(Monthly, 35 cents. 330 West 42nd Street, New York)

August. Further designs submitted in the small house competition: George T. Licht's Rome prize design for a small Protestant church, a simpler subject than those generally set for the same prize in this country.

September. George Nelson continues his series of articles on European architects. Mies van der Rohe this month. The last



*A grandstand design by A. J. Barzaghi. The stadium was originally laid out to enclose a standard Olympic athletic field and to have a seating capacity of from 100,000 to 120,000. It was designed to have no columns which might interfere with the view of spectators on the lower tier; a diagonal strut was designed instead to support the upper tier. Entrance at each portal is by means of an inclined ramp which brings the spectators to the lower deck. Those having seats on the upper deck go out around the circular ramp and re-enter each bent, where two short flights of stairs carry them up to the inclined strut, which also acts as a ramp; see section.*

(From the "Architectural Record.")

instalment of critical essays by Mr. H. van Buren Magonigle, whose unfortunate death is announced in the same number.

#### ARGENTINE

##### *Revista de Arquitectura*

(Monthly, \$15 per annum. Lavalle 310, Buenos Aires)

July. A pleasantly simple theatre redecoration by Juan Mansilla and Federico Lynch: results of a competition for a medical club, an interesting plan on a poor site.

August. The now inevitable *Normandie*, a long article redeemed by some technical information not hitherto published in any architectural magazine. Recent decorative work in Buenos Aires, much of it excellent.

#### BELGIUM

##### *La Cité*

(Monthly, 5 fr. 10 Rue du Musée, Brussels)

No. 4. Extracts from a book by Alexander Klein on the detached house, illustrated with some good plans from Palladio to the present day; a review of the legal status of architects in various European countries.

##### *L'Emulation*

(Monthly, 20 belgas per annum. 12 rue du Grand Cerf, Brussels)

Nos. 3, 4 and 5. Three issues devoted to a thorough analysis of school requirements.

#### FINLAND

##### *Arkitekten*

(Monthly, 15 fmk. Ainogatan 3, Helsingfors)

No. 7. An article on the town-planning of various districts in northern Europe, the author, P. E. Blomstedt, maintaining that the conclusions reached in different countries are comparable when climatic conditions and population densities are the same. The results of a competition for the new Finnish legation building in Moscow, won by Erik Lindroos.

#### FRANCE

##### *L'Architecture d'aujourd'hui*

(Monthly, 25 fr. 5 Rue Bartholdi, Boulogne, Seine)

No. 8. A number devoted to the evolution of modern transport, containing long reviews of the development of present-day marine practice, railway, motor-car and aeronautical work, and a long article on the *Normandie* which starts logically by explaining the traffic demands of the North Atlantic service. A very good reference number.

##### *L'Architecture*

(Monthly, 6 fr. 51 Rue des Ecoles, Paris 5<sup>e</sup>)

August. A new church by M. Emile Bois, described as a "contemporary restatement based on memories of the past"; current French provincial architecture.

##### *La Technique des Travaux*

(Monthly, 10 fr. 54 Rue de Clichy, Paris 9<sup>e</sup>)

August. The new building for the

electricity supply company of Prague, designed by Bens and Kriz, very reminiscent of Havlicek and Honzik's Pensions building, and of roughly the same date. Municipal baths at Bordeaux, a little coarse in detail, but with a good plan.

September. A swimming-bath at Trouville, a good modern scheme by two architects, one of whom is a Rome scholar; notes on the Franki system for pressure piles of great length.

## GERMANY

### Baugilde

(Fortnightly, 1 m. 50. Grünstrasse 4, Berlin S.W.19)

No. 18. Radiators, their dimensions, fixing, and heating capacities: rural housing, and some unusual joinery details.

No. 19. The dimensions of open fireplaces; a large traditional farm in Oldenburg.

No. 20. The design and construction of bomb-proof cellars.

No. 21. A long and well-illustrated article on Askum, the Holy City of Ethiopia.

### Baukunst und Städtebau

(Monthly 1 m. 90. Bauwelt Verlag, Berlin, S.W.68)

August. Further work by past pupils of Hans Poelzig, including a good chapel in uncoursed rubble by Rudolf Schwartz.

September. A combined office block and cinema in Cologne, by Wilhelm Riphahn; results of a competition for the new library at Frankfurt University; garden architecture.

### Baumeister

(Monthly, 3 m. Georg Callwey, Munich)

August. New infantry barracks and the art museum, both in Lucerne; alterations to an old church in Berne. Small country houses.

September. Country houses for painters.

### Bauwelt

(Weekly, 90 pf. Ullstein Verlag, Berlin, S.W.68)

August 8. Results of a competition for a new meeting hall at Beuthen.

August 15. Workers' housing at Aachen.

August 22. Tabulated data on various types of heating boilers.

September 5. Country houses in Finland and Norway.

September 19. A proposed church by Erik Pfannschmidt.

September 26. Small country houses.

### Deutsche Bauzeitung

(Weekly, 3 m. 40 per month. Seydelstrasse 6, Berlin, S.W.19)

August 7. Competition for a new town hall in Augsburg.

August 14. A three-page article on the recent housing congress in London.

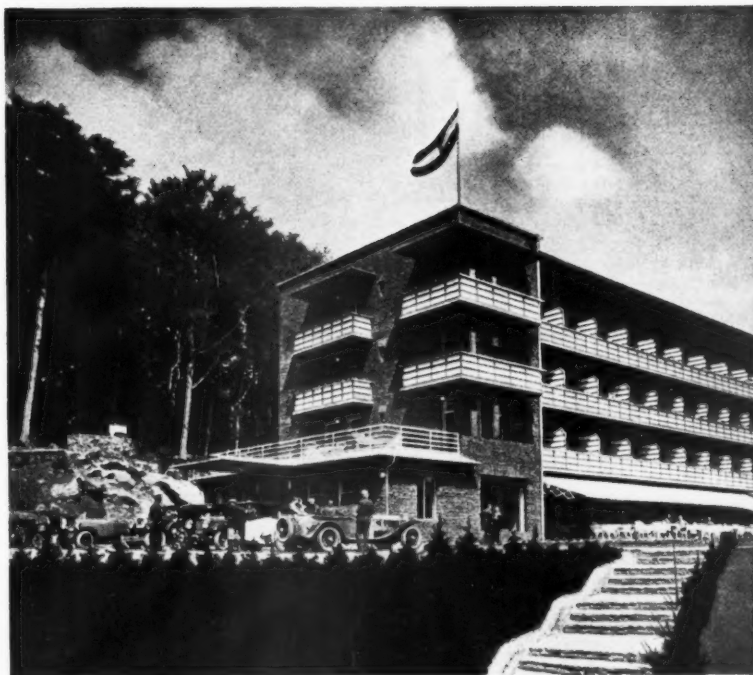
August 21. The lay-out of housing estates.

August 28. The work of Professor Hummel at Darmstadt.

September 4. Traditional Norwegian stone churches.

September 11. Housing statistics for recent German government work.

September 25. Competition for a new students' dormitory.



A sport hotel 3,000 feet up in the Carpathians, by L. Csonka and L. Miskolczy. (From "Moderne Bauformen.")

### Innen Dekoration

(Monthly 2 m. 50. Neckarstrasse 121, Stuttgart)

August. A good reconstruction job by Hermann Zweigenthal.

September. Recent English interiors illustrated by the work of Ian Henderson.

### Moderne Bauformen

(Monthly, 2 m. 25. Julius Hoffmann, Stuttgart)

August. A large private house converted, with a minimum of structural alteration, into a well-planned maternity home; a large ski-ing hut near Davos; a holiday house for students and some good upholstered chairs.

September. A brick church on the lower Rhine by Josef op gen Oorth; houses for doctors.

## HOLLAND

### Bouwkundig Weekblad Architectura

(Weekly, 15 florins per annum. Weteringshaas 102, Amsterdam)

August 3. The new museum at 's-Gravenhage, by the late H. P. Berlage.

August 10. A nursing home for Jews in Amsterdam, by J. F. Staal.

August 17. A church restoration by H. v.d. Kloot Meijburg.

August 24. The Swiss pavilion at Brussels.

September 7. Radiant ceiling panels at the 's-Gravenhage Museum.

September 14 and 21. The replanning of the seaside resort of Bloemendaal.

September 28. A survey of existing buildings in North Brabant.

### de 8 en ophouw

(Fortnightly, 30 cents. Amstel 22, Amsterdam, C.)

August 3. The "Functional State" exhibition at Amsterdam.

August 17. Work by the late Theo van Doesburg.

August 31. Open air bath at Bloemendaal by G. Holt, good plans and photographs.

September 14. A proposed high level suspension bridge over the Maas at Rotterdam, a fully analysed scheme.

## ITALY

### Architettura

(Monthly, 18 lire. Via Palermo 10, Milan)

August. Mostly schools, with several pages of photographs of a particularly well-arranged exhibition of Italian sport in Milan.

### Rassegna di Architettura

(Monthly, 15 lire. via Podgora 9, Milan, 105)

July-August. A covered swimming bath in Milan, well illustrated with good photographs, plans and sections.

## SWEDEN

### Boet

(Monthly 1 kr. 50. Kristinelundsgatan 11, Gothenburg)

No. 8. Swedish exhibits at the Brussels exhibition; recent fabric designs.

## SWITZERLAND

### Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 6, Zurich)

August 3. The International Bath exhibition at Zurich.

August 10. Brussels exhibition.

August 17 and 24. Results of a school competition: the designs reviewed.

August 31. A church at Winterthur by Kasimir Kaczorowski.

September 7. Further notes on the Bath exhibition.

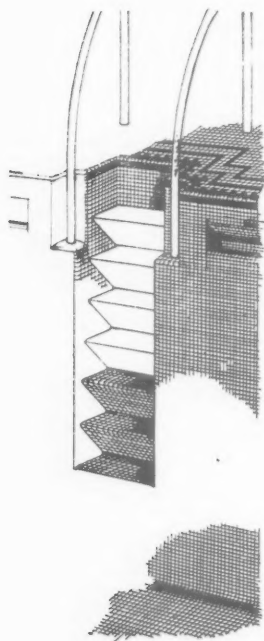
September 28. The engineering laboratory at Zurich technical school, with a description of a large district heating scheme.

### Werk

(Monthly 3 fr. 60. Muhlebachstrasse 59, Zurich)

August. Zurich Technical School very fully described with excellent photographs.





## TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

### Swimming Pools

SOME weeks ago I commented upon the growing tendency amongst manufacturers to provide useful information rather than enthusiastic claims for the supremacy of their products, and another example of this outlook is provided by a booklet on Swimming Pools recently issued by Richards Tiles, Ltd.

The booklet, very naturally, gives full details of the scum troughs, pool linings and other types of plain and non-slip tile manufactured by this company, but there is also

a great deal of general data on the most suitable dimensions of pools for various purposes, and a reasoned review of the merits and demerits of different scum-trough sections. The headpiece to these notes shows a new type of swimming pool ladder designed for this firm by Mr. O. A. Bayne.

The diagrams at the foot of this page show four different types of circulation for the water in the pool: the first three are in common use, the third being the most popular, but the fourth system is suggested



Figure 1

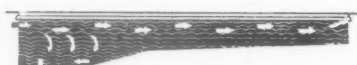


Figure 2

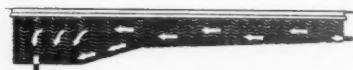


Figure 3

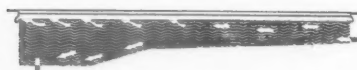


Figure 4

Figure 1.—Water entering at deep end, and leaving only by surface outlets at shallow end. Deep water "dead," heavy impurities not removed. Figure 2.—Water entering at deep end, and leaving by deep outlets at deep end and surface outlets at shallow end. Note the short-circuiting. Figure 3.—The system at present in force. Water entering at the shallow end and leaving only by deep outlets at the deep end; scum trough practically inoperative. Figure 4.—The system proposed. Water entering at shallow end, and leaving by deep-end deep outlets and most of scum trough. Note fall of trough towards deep end.

as a further improvement. The side troughs of the pool are laid with a slight fall ( $\frac{1}{4}$  in. in 100 ft. is suggested) from the shallow to the deep end and the water level is normally maintained slightly below the trough lip at the shallow end, and slightly above it at the deep end.

In justification of this scheme it is pointed out that no appreciable volume of water would enter the trough at the shallow end (where the incoming water is at its purest) but that more and more water would flow into it as the deep end—and the less pure water—was approached, and that any floating impurities would therefore pass into the trough after travelling a minimum distance.

The idea is very fairly discussed, and it is incidentally pointed out that the filtration plant would have to be capable of dealing with the extra flow which would be caused by a sudden influx of bathers raising the water level. This scheme has not, so far as I know, been suggested before, and I can see no reason why such a logical improvement should not ultimately become standard practice.

If only all the firms in the building industry would take such an intelligent interest in the efficiency of the buildings in which their products are used the practice of architecture would be a great deal easier.

### Aluminium Data

A different type of booklet, equally admirable, has been produced by the British Aluminium Company. It is called *Aluminium Facts and Figures*, and consists entirely of terse statements about aluminium and its alloys, what they are made of, what they will do, how to cast, machine, press, polish, spin, paint, weld, forge or rivet them, and full diagrams of the sections available.

A good deal of this publication naturally consists of information which would never normally be needed by any architect, but many of the sections described as "Drips and Gutterings" can be used as cheap and efficient pull handles for cupboards and drawers as I know from experience: unequal-sided angles are also useful for the same purpose.

These sections, as they come from the rolls, have a semi-matt finish which looks slightly like anodizing, though without the polish. Ordinary use as handles does away with the need for polishing, but any suspicion of the unpleasant rough white film of oxide can be discouraged by the occasional application of ordinary furniture polish.

Streamline sections, tubular or solid, are available for anyone who is apprehensive of excessive wind resistance in table-legs, balusters or balcony railings.



## THE WEEK'S BUILDING NEWS

## LONDON &amp; DISTRICTS (15-MILES RADIUS)

**BERMONDSEY.** *Dwellings.* The B.C. is to erect dwellings on the Elm estate at a cost of £17,000.

**COULSDON.** *Swimming Pool.* Messrs. Gunton and Gunton, on behalf of Fairdean Heights, Ltd., are seeking permission for the construction of a swimming pool at Coulsdon Road, Coulsdon.

**COULSDON.** *Hotel.* Messrs. Page and Overton, Ltd., are seeking permission for the erection of an hotel at the Tound House, Coulsdon.

**EALING.** *Factory Extensions.* Messrs. Homan and Goodrham, are the architects for the additions to be made to the Tea Block for Messrs. J. Lyons & Co., Ltd., in Oldfield Lane.

**EAST HAM.** *Clinic and offices.* The Corporation has approved plans, prepared by the borough engineer, for the erection of a clinic and offices for the health department at Barking Road.

**HACKNEY.** *Housing.* The B.C. is to acquire housing sites in Rossington Street and Cazenove Road.

**HAMMERSMITH.** *Town Hall.* The B.C. has appointed a committee to formulate another scheme for the erection of a new town hall.

**KENTON.** *Development.* The L.C.C. is to proceed with the development of the Kenmore Park estate, Kenton, at a cost of £279,500. About 696 houses are to be provided.

**SANDERSTEAD.** *Additions, etc.* Plans passed: Additions, St. Anne's College, Sanderstead Road, for Mr. Bernard J. McAdam; four houses, The Windings, for Mr. F. C. Woodruff; two houses, Church Way, for Messrs. Miller & Co.; 26 houses, Barn Crescent, for Messrs. J. Laing and Son, Ltd.; 36 houses, Benhurst Gardens, and 20 houses, Elm Park Gardens, for Messrs. R. Costain, Ltd.; 22 houses, Ashdown Gardens, for Messrs. Meakin, Archer & Co.

**SOUTHFIELDS.** *Factory Extension.* Additions are to be made to the factory of Messrs. Ault and Wibore, Standen Road, to plans prepared by Messrs. Gunton and Gunton.

**WANSTEAD AND WOODFORD.** *Flats, etc.* Plans passed by the U.D.C.: 30 flats, Woodford Road; 19 shops, St. Barnabas Road; shops, flats and maisonettes, Snakes Lane; extensions, Jubilee Hospital, Broomhill Road; 12 houses, Roding Lane.

**WATFORD.** *Swimming Bath.* The Corporation is considering the construction of an open air swimming bath in Radlett Road.

**WATFORD.** *Depot for the Electricity Department.* The Corporation has purchased land at Hemel Hempstead for the erection of a depot for the electricity department.

**WATFORD.** *Houses.* Plans passed by the Corporation: Six houses, Parkside Drive, for Mr. J. Randall; alterations and additions, Gartlet School, Clarendon Road, for Miss Goadby; 16 houses, Fourth Ace, for Messrs. W. Wilkins and Sons; eight houses, Radlett Road, for Messrs. Holt Bros.; bank, Chalk Hill, for Midland Bank, Ltd.; 15 houses, Briar Road, for Hillingdon Estate Co.; two houses, Southfield Avenue, for Mr. John Goss; warehouse and alterations and additions, Market Arcade, for Messrs. J. Cawdell & Co.; six shops and flats, High Street, for Messrs. Cotterell and Knight.

## SOUTH-WESTERN COUNTIES

**CHELTEMHAM.** *Church.* The Corporation has sold a church site on the Whaddon Farm Estate to the All Saints' Parochial Church Council.

**CHELTEMHAM.** *Houses, etc.* Plans passed by the Corporation: Eight houses, Mead Road, for Messrs. J. D. Bendall and Sons; eight houses, Jersey Avenue, for Messrs. Goddard and Hunt; classrooms, Swindon Road schools, for Mr. H. J. Davies; alterations, Midland Hotel, for Cheltenham Brewery Co., Ltd.; 23 houses, Brooklyn Road, for Mr. G. A. M. Hall; 19 flats, Evesham Road, for Maryland Properties, Ltd.; alterations, Pittville Street, for Messrs. Sharpe and Fisher, Ltd.; eight houses, Arle Road, for Mr. E. F. Stinchcombe;

shop and house, Fairview Road, for Mr. W. Johnson; alterations, 353, High Street, for Messrs. J. Hepworth and Son, Ltd.

**TORQUAY.** *Rehousing.* The Corporation is to acquire rehousing land at Watcombe, and has asked the borough engineer to prepare plans for 400 houses.

**WEYMOUTH.** *Houses, etc.* Plans passed by Corporation: Two houses, Faircross Avenue, for Messrs. Smith and Lander; two houses, Lynch Lane, for Messrs. A. and G. Blackwell; 10 houses, Dorchester Road, for Messrs. S. Jackson and Sons; two houses, Dorchester Road, for Mr. G. E. Bartlett; four houses, Lynch Lane, for Wessex Housing Society; shop and store, Weymouth College, for Mr. P. W. Fitzgerald; six houses, East Wyld estate, for Mr. C. Bartlett; five houses, Grove Avenue, for Mr. L. S. Smith; seven houses, Claremont Road, for Mr. K. Openshaw; alterations and additions, Spring Head Hotel, Sutton Poynt, for Messrs. Jesty and Baker; 12 bungalows, off Radipole Lane, for Mr. S. Tewson; five houses, Stoke Road, for Messrs. Andrews and Andrews.

## SOUTHERN COUNTIES

**BOURNEMOUTH.** *Cinema.* The Corporation has passed plans, submitted by Associated British Cinemas, Ltd., for the erection of a cinema in Westover Road.

**BRIGHTON.** *Houses.* Plans passed by the Corporation: Alterations and additions, St. John's School, Bristol Road, for Baptist trustees; 26 houses, Ninfeld Crescent, Withdean, for Mr. Francis G. Thompson; alterations and additions, Old Ship Hotel, Ship Street, for Old Ship Hotel, Ltd.; 14 houses, Garden Avenue estate, for Messrs. Braybans, Ltd.; 22 houses, Valley Road, Rottingdean, for Mr. Louis Sweetman; four bungalows, Sunnydale Avenue, for Mr. Joseph Sweeney; three houses, Beechwood Avenue, for Mr. Charles W. Comber; extensions, Princess Laundries, Whippingham Street, for Princess Laundries, Ltd.; reconstruction, 27-31, Lonson Road, for Mr. G. A. Rosling.

## NORTHERN COUNTIES

**DEWSBURY.** *Houses.* Plans passed by the Corporation: Two houses, Leeds Road, for Messrs. W. Wormald and Son; six houses, Earlsheaton, for Greenwood trustees; extensions, Oaklands Mill, Ravensthorpe, for Messrs. Marshall and Kaye, Ltd.; club, Ravenshouse Road, for Dewsbury Moor Club Committee; sub-station, Heasfield Mills, for Messrs. Fenton and Bradley; two houses, Chapel Lane, for Mr. W. Wilcock; factory extensions, Brewery Lane, for Yorkshire Electric Transformer Co., Ltd.; two houses, Edge Top Road, for Mr. J. Tierney; tannery extensions, Bridge Street, for Messrs. Hartley Bros., Ltd.; two houses, Rathlin Road, for Messrs. Greensmith and Shorrocks; premises, Northgate, for Messrs. Marks and Spencer, Ltd.

**ROTHERHAM.** *Houses.* The Corporation is to erect 138 houses at Herringthorpe, and 130 at Canklow at a cost of £89,000.

**WARRINGTON.** *Works, Houses, etc.* Plans passed by Warrington Corporation: Works, Broad Arpley Lane, for Messrs. Mayhall and Tomlinson; four houses, Manchester Road, for Messrs. W. Barnes and Son; shop, 48, Padgate Lane, for Mr. J. J. Simpson; 14 houses, Hoyle Street, for Mr. H. Greenwood; eight houses, Fitzherbert Street, for Mr. A. Jones; 17 houses and two shops, Parr Street, for Messrs. Perdue and Whitfield; alterations, Packet House Inn, Bridge Street, for Messrs. Greenall, Whitley & Co., Ltd.; bridge, Carter's premises, off Bridge Street, for Messrs. Hodekinsons, Ltd.; bridge, Norman Street, for Alliance Box Co., Ltd.

**WARRINGTON.** *Firemen's Dwellings.* The Corporation is to obtain a site near the fire station for the erection of firemen's dwellings.

## SCOTLAND

**EDINBURGH.** *Estate Development.* The Dean of Guild has approved plans for the development of the Laughton Estate, by the erection of 808 houses, by Mr. George Stewart, of Blantyre, under the private enterprise scheme arranged by the Corporation. The cost is estimated between £280,000 and £300,000.

**FAIRMILEHEAD.**—A new ward is to be erected at a cost of £5,500 at the Princess Margaret Rose Hospital for Cripple Children. The architect is Mr. Reginald Fairlie.

## WALES

**SWANSEA.** *Houses, etc.* Plans passed by the Corporation: Five houses, Overland Road, for Mr. J. C. Oliver; flats, Walter Road and Brynmor Crescent, for Estateways Builders, Ltd.; three houses, off Murton Road, for Mr. A. E. Pressdee; 10 houses, Townhill Road, for Mr. J. H. Hixson; infirmary, Derwen Fawr Road, for Rev. Rees Howells; squash racquets court, South End, for Bristol Channel Yacht Club; two shops and houses, Greiglywd Road, for Mr. Syd Davies; three shops and flats, Sketty Cross, for Mr. J. C. Oliver.

## THE BUILDINGS ILLUSTRATED

**BRIGHTON, HOVE AND WORTHING AIRPORT** (pages 633-638). The general contractors were Messrs. James Bodle, Ltd. The principal sub-contractors and suppliers included:—

*Structure.*—James Couper & Co., Ltd., steelwork for terminal building; Boulton and Paul, Ltd., Norwich, steelwork for hangars; Caxton Floors, Ltd., reinforced concrete floors; Williams Gamon & Co. (Kaleyards), Ltd., steel windows and doors; Trussed Concrete Steel Co., Ltd., reinforced concrete raft; G. Asserati, Ltd., asphalt contractors; Rollo Products, Ltd., concrete waterproofing; D. Anderson and Son, Ltd., Thermotile roofing; Turners Asbestos Cement Co., asbestos sheeting for hangars.

*Finishes.*—Noel Floors, Ltd., hardwood mosaic floors; Pennycook Patent Glazing Co., Ltd., patent glazing; Cellon, Ltd., all paintwork throughout (materials only); Hollis Bros. & Co., Ltd., wood block floors; H. E. Gaze, Ltd., fibrous plaster; H. T. Bush, Ltd., signwriting.

*Equipment.*—B. French, Ltd., electrical engineers; Abbey Heating Co., Ltd., central heating; Benham and Sons, Ltd., cooking apparatus; Gent & Co., Ltd., electric clocks and alarm syrens; Best and Lloyd, Ltd., electric fittings; Bentalls, Ltd., cocktail bar and club furnishing; E. G. Brown (Brighton), Ltd., sanitary fittings; George Wright (London), Ltd., iron railings, grates, etc.; Hill and Smith Ltd., iron fences; Stanton Iron Works, Co., Ltd., concrete and iron drain pipes.

*Specialists' Work.*—En-Tout-Cas Co. (System), Ltd., preparation of landing ground; George Wimpey & Co., Ltd., road contractors; General Electric Co., Ltd., boundary lights, illuminated wind indicator, flood light and obstruction lights; S. F. Bowser & Co. (London), Ltd., petrol pumps; Lionwelt Steel Flooring Stairway Co., checker gratings; Benjamin Electric, Ltd., electric fittings for hangar and flood lights; Brooks, Ltd., porous pipes for landing area; Drake and Gorham, Ltd., neon flashing beacon.

# RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for

labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I.		II.					I.		II.		
			s.	d.	s.	d.				s.	d.	s.	d.	
A <sub>1</sub>	<b>A</b> BERDEEN ..	S. Wales & M.	1 5	1 1 1/2	A <sub>2</sub>	<b>E</b> ASTBOURNE ..	S. Counties	1 5	1 0 1/2	A	Northampton ..	Mid. Counties	1 4 1/2	1 0 1/2
A	Aberdeen ..	Scotland	1 6	1 1 1/2	A <sub>1</sub>	Ebbw Vale ..	S. Wales & M.	1 5 1/2	1 1 1/2	A	North Staffs ..	Mid. Counties	1 6	1 1 1/2
A <sub>1</sub>	Aberavenny ..	S. Wales & M.	1 5 1/2	1 1 1/2	A	Edinburgh ..	Scotland	1 6	1 1 1/2	A	North Shelds ..	N.E. Coast	1 6	1 1 1/2
A	Abingdon ..	S. Counties	1 4 1/2	1 0 1/2	A <sub>1</sub>	E. Glamorgan ..	S. Wales & M.	1 5 1/2	1 1 1/2	A <sub>1</sub>	Norwich ..	E. Counties	1 5 1/2	1 1 1/2
A	Accrington ..	N.W. Counties	1 6	1 1 1/2		shire, Rhondda				A	Nottingham ..	Mid. Counties	1 6	1 1 1/2
A <sub>2</sub>	Addlestone ..	S. Counties	1 4 1/2	1 0 1/2		Valley District				A	Nuneaton ..	Mid. Counties	1 6	1 1 1/2
A	Adlington ..	N.W. Counties	1 6	1 1 1/2	A <sub>1</sub>	Exeter ..	S.W. Counties	1 5	1 0 1/2					
A	Aldrie ..	Scotland	1 6	1 1 1/2	B	Exmouth ..	S.W. Counties	1 4	1 0					
C	Aldbrough ..	E. Counties	1 2	10 1/2						A	<b>O</b> AKHAM ..	Mid. Counties	1 4 1/2	1 0 1/2
A	Altrincham ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	<b>F</b> ELIXSTOWE ..	E. Counties	1 4 1/2	1 0 1/2	A	Oldham ..	N.W. Counties	1 6	1 1 1/2
B <sub>2</sub>	Appley ..	N.W. Counties	1 2 1/2	11	A	Filey ..	Yorkshire	1 4 1/2	1 0 1/2	A <sub>2</sub>	Oswestry ..	N.W. Counties	1 4 1/2	1 0 1/2
A	Ashton-under-Lyne ..	N.W. Counties	1 6	1 1 1/2	A	Fleetwood ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	Oxford ..	S. Counties	1 5 1/2	1 1 1/2
B <sub>1</sub>	Aylesbury ..	S. Counties	1 3 1/2	11 1/2	B <sub>1</sub>	Folkestone ..	S. Counties	1 3 1/2	11 1/2					
					B <sub>2</sub>	Frosham ..	N.W. Counties	1 6	1 1 1/2					
						Frome ..	S.W. Counties	1 3	11 1/2					
B <sub>1</sub>	<b>B</b> ANBURY ..	S. Counties	1 3 1/2	11 1/2						A	<b>P</b> AISLEY ..	Scotland	1 6	1 1 1/2
B <sub>1</sub>	Banger ..	N.W. Counties	1 3 1/2	11 1/2	A	<b>G</b> ATSFHEAD ..	N.E. Coast	1 6	1 1 1/2	B <sub>2</sub>	Pembroke ..	S. Wales & M.	1 2 1/2	11
A <sub>1</sub>	Barnard Castle ..	N.E. Coast	1 4 1/2	1 0 1/2	B	Gillingham ..	S. Counties	1 4	1 0	A	Perth ..	Scotland	1 6	1 1 1/2
A	Barnsley ..	Yorkshire	1 6	1 1 1/2	A	Glasgow ..	Scotland	1 6 1/2	1 2	A <sub>1</sub>	Peterborough ..	E. Counties	1 5 1/2	1 1 1/2
A	Barnstaple ..	S.W. Counties	1 4	1 0	A <sub>2</sub>	Gloucester ..	S.W. Counties	1 5	1 0 1/2	A	Plymouth ..	S.W. Counties	1 6 1/2	1 1 1/2
A	Barrow ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	Goole ..	Yorkshire	1 5	1 0 1/2	A	Pontefract ..	Yorkshire	1 6	1 1 1/2
A	Barry ..	S. Wales & M.	1 6	1 1 1/2	A <sub>2</sub>	Gosport ..	S. Counties	1 5	1 0 1/2	A <sub>1</sub>	Pontypridd ..	S. Wales & M.	1 5 1/2	1 1 1/2
B <sub>1</sub>	Basingstoke ..	S.W. Counties	1 3 1/2	11 1/2	A <sub>2</sub>	Grantham ..	Mid. Counties	1 4 1/2	1 0 1/2	A <sub>2</sub>	Portsmouth ..	S. Counties	1 5	1 0 1/2
A <sub>1</sub>	Bath ..	N.W. Counties	1 5	1 0 1/2	A <sub>1</sub>	Gravesend ..	S. Counties	1 5 1/2	1 1 1/2	A	Preston ..	N.W. Counties	1 6	1 1 1/2
A <sub>1</sub>	Batley ..	Yorkshire	1 6	1 1 1/2	A <sub>1</sub>	Greenock ..	Scotland	1 6	1 1 1/2					
A	Bedford ..	E. Counties	1 5	1 0 1/2	B	Grimaby ..	Yorkshire	1 6	1 1 1/2					
A <sub>2</sub>	Berwick-on-Tweed ..	N.E. Coast	1 5	1 0 1/2	B	Guildford ..	S. Counties	1 4	1 0					
										A	<b>Q</b> UERNSFERRY ..	N.W. Counties	1 6	1 1 1/2
A	Bewdley ..	Mid. Counties	1 5	1 0 1/2						A	<b>R</b> ADING ..	S. Counties	1 5	1 0 1/2
B <sub>2</sub>	Bicester ..	S. Counties	1 2 1/2	11	A	<b>H</b> ALIFAX ..	Yorkshire	1 6	1 1 1/2	B	Reigate ..	S. Counties	1 4	1 0
A	Brakenhead ..	N.W. Counties	1 7 1/2	1 2 1/2	A	Hanley ..	Mid. Counties	1 6	1 1 1/2	A	Retford ..	Mid. Counties	1 4 1/2	1 0 1/2
A	Birmingham ..	Mid. Counties	1 6	1 1 1/2	A	Harrogate ..	Yorkshire	1 6	1 1 1/2	A <sub>1</sub>	Rhondda Valley ..	S. Wales & M.	1 5 1/2	1 1 1/2
A <sub>1</sub>	Bishop Auckland ..	N.E. Coast	1 5 1/2	1 1 1/2	A	Hartlepool ..	N.E. Coast	1 6	1 1 1/2	A	Ripon ..	Yorkshire	1 4 1/2	1 0 1/2
A	Blackburn ..	N.W. Counties	1 6	1 1 1/2	B	Harwich ..	E. Counties	1 4	1 0	A	Rochdale ..	N.W. Counties	1 6	1 1 1/2
A	Blackpool ..	N.W. Counties	1 6	1 1 1/2	B <sub>1</sub>	Hastings ..	S. Counties	1 3 1/2	11 1/2	B	Rochester ..	S. Counties	1 4	1 0
A	Blith ..	N.E. Coast	1 6	1 1 1/2	A <sub>2</sub>	Hatfield ..	S. Counties	1 5	1 0 1/2	A	Rusdon ..	N.W. Counties	1 5 1/2	1 1 1/2
B <sub>1</sub>	Bognor ..	S. Counties	1 3 1/2	11 1/2	B	Hereford ..	S.W. Counties	1 4	1 0	A	Rugby ..	Mid. Counties	1 6	1 1 1/2
A	Bolton ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	Hertford ..	E. Counties	1 5	1 0 1/2	A	Runcorn ..	N.W. Counties	1 6	1 1 1/2
A <sub>2</sub>	Boston ..	Mid. Counties	1 4 1/2	1 0 1/2	A	Heysham ..	N.W. Counties	1 6	1 1 1/2					
A <sub>2</sub>	Bournemouth ..	S. Counties	1 5	1 0 1/2	A	Howden ..	N.E. Coast	1 6	1 1 1/2					
B <sub>2</sub>	Bovey Tracey ..	S.W. Counties	1 3 1/2	11 1/2	A	Huddersfield ..	Yorkshire	1 6	1 1 1/2					
A	Bradford ..	Yorkshire	1 6	1 1 1/2	A	Hull ..	Yorkshire	1 6	1 1 1/2					
A <sub>1</sub>	Brentwood ..	E. Counties	1 5 1/2	1 1 1/2						A <sub>1</sub>	<b>S</b> T. ALBANS ..	E. Counties	1 5 1/2	1 1 1/2
A <sub>1</sub>	Bridgend ..	S. Wales & M.	1 6	1 1 1/2	A	<b>I</b> LKLEY ..	Yorkshire	1 6	1 1 1/2	A	St. Helens ..	N.W. Counties	1 6	1 1 1/2
B	Bridgewater ..	S.W. Counties	1 4	1 0	A	Immingham ..	Mid. Counties	1 6	1 1 1/2	B <sub>2</sub>	Salisbury ..	S.W. Counties	1 3	11 1/2
A <sub>1</sub>	Bridlington ..	Yorkshire	1 5 1/2	1 1 1/2	A <sub>1</sub>	Ipswich ..	E. Counties	1 5	1 0 1/2	A <sub>1</sub>	Scarborough ..	Yorkshire	1 5 1/2	1 1 1/2
A	Brighouse ..	Yorkshire	1 6	1 1 1/2	B <sub>2</sub>	Isl of Wight ..	S. Counties	1 3	11 1/2	A	Scunthorpe ..	Mid. Counties	1 6	1 1 1/2
A	Brighton ..	S. Counties	1 5	1 0 1/2						A	Sheffield ..	Yorkshire	1 6	1 1 1/2
A	Bristol ..	S.W. Counties	1 6	1 1 1/2						A	Shipley ..	Yorkshire	1 6	1 1 1/2
B	Brixham ..	S.W. Counties	1 3 1/2	11 1/2						A <sub>2</sub>	Shrewsbury ..	Mid. Counties	1 5	1 0 1/2
A	Bromsgrove ..	Mid. Counties	1 5	1 0 1/2	A	<b>J</b> ARROW ..	N.E. Coast	1 6	1 1 1/2	A <sub>2</sub>	Skipton ..	Yorkshire	1 5	1 0 1/2
B	Bromyard ..	Mid. Counties	1 2 1/2	11						A <sub>2</sub>	Slough ..	S. Counties	1 5	1 0 1/2
A	Burnley ..	N.W. Counties	1 6	1 1 1/2	A	<b>K</b> EIGHLEY ..	Yorkshire	1 6	1 1 1/2	A <sub>1</sub>	Southall ..	Mid. Counties	1 5 1/2	1 1 1/2
A	Burslem ..	Mid. Counties	1 6	1 1 1/2	A <sub>2</sub>	Kendal ..	N.W. Counties	1 4 1/2	1 0 1/2	A <sub>1</sub>	Southampton ..	S. Counties	1 5	1 0 1/2
A	Burton-on-Trent ..	Mid. Counties	1 6	1 1 1/2	A <sub>2</sub>	Kewick ..	N.W. Counties	1 4 1/2	1 0 1/2	A <sub>1</sub>	Southend-on-Sea ..	E. Counties	1 5 1/2	1 1 1/2
A	Bury ..	N.W. Counties	1 6	1 1 1/2	A <sub>1</sub>	Kettering ..	Mid. Counties	1 5 1/2	1 1 1/2	A	Southport ..	N.W. Counties	1 6	1 1 1/2
A	Buxton ..	N.W. Counties	1 5 1/2	1 1 1/2	B <sub>1</sub>	Kidderminster ..	Mid. Counties	1 5	1 0 1/2	A	S. Shields ..	N.E. Coast	1 6	1 1 1/2
						King's Lynn ..	E. Counties	1 3 1/2	11 1/2	A <sub>1</sub>	Stafford ..	Mid. Counties	1 5 1/2	1 1 1/2
										A	Stirling ..	Scotland	1 6 1/2	1 2
A <sub>1</sub>	<b>C</b> AMBRIDGE ..	E. Counties	1 5 1/2	1 1 1/2	A	<b>L</b> ANCASTER ..	N.W. Counties	1 6	1 1 1/2	A	Stockport ..	N.W. Counties	1 6	1 1 1/2
B <sub>1</sub>	Canterbury ..	S. Counties	1 3 1/2	11 1/2	A <sub>1</sub>	Leamington ..	Mid. Counties	1 5 1/2	1 1 1/2	A	Stockton-on-Tees ..	N.E. Coast	1 6	1 1 1/2
A	Cardiff ..	S. Wales & M.	1 6	1 1 1/2	A <sub>1</sub>	Leeds ..	Yorkshire	1 6	1 1 1/2	A	Stoke-on-Trent ..	Mid. Counties	1 6	1 1 1/2
A	Cardle ..	N.W. Counties	1 6	1 1 1/2	A	Leek ..	Mid. Counties	1 6	1 1 1/2	B	Stroud ..	S.W. Counties	1 4	1 0
B	Cardmarthen ..	S. Wales & M.	1 4	1 0	A	Leicester ..	Mid. Counties	1 6	1 1 1/2	A	Sunderland ..	N.E. Coast	1 6	1 1 1/2
A	Carnarvon ..	N.W. Counties	1 4	1 0	A	Leigh ..	N.W. Counties	1 6	1 1 1/2	A	Swansea ..	S. Wales & M.	1 6	1 1 1/2
A	Carnforth ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	Lewes ..	S. Counties	1 2 1/2	11	A	Swindon ..	S.W. Counties	1 4 1/2	1 0 1/2
A	Castleford ..	Yorkshire	1 6	1 1 1/2	A	Lichfield ..	Mid. Counties	1 5	1 0 1/2					
A	Chatham ..	E. Counties	1 4 1/2	1 0 1/2	A	Lincoln ..	Mid. Counties	1 6	1 1 1/2	A <sub>1</sub>	<b>T</b> AMWORTH ..	N.W. Counties	1 5 1/2	1 1 1/2
A <sub>1</sub>	Chelmsford ..	E. Counties	1 4 1/2	1 0 1/2	A	Liverpool ..	N.W. Counties	1 6	1 1 1/2	B	Taunton ..	S.W. Counties	1 4	1 0
A	Cheltenham ..	S.W. Counties	1 4 1/2	1 0 1/2	A <sub>2</sub>	Llandudno ..	N.W. Counties	1 5	1 0 1/2	A	Teesside Dist. ..	N.E. Counties	1 6	1 1 1/2
A	Chesham ..	N.W. Counties	1 6	1 1 1/2	A <sub>2</sub>	Llanelli ..	S. Wales & M.	1 6	1 1 1/2	A <sub>2</sub>	Telghmouth ..	S.W. Coast	1 5	1 0 1/2
A	Chesham ..	N.W. Counties	1 6	1 1 1/2		London (12-miles radius)				A <sub>2</sub>	Todmorden ..	Yorkshire	1 6	1 1 1/2
A <sub>1</sub>	Chichester ..	S. Counties	1 3 1/2	11 1/2		Do. (12-15 miles radius)				A <sub>1</sub>	Torquay ..	S.W. Counties	1 5 1/2	1 1 1/2
B <sub>1</sub>	Chorley ..	N.W. Counties	1 6	1 1 1/2	A	Long Eaton ..	Mid. Counties	1 7	1 2 1/2	B <sub>2</sub>	Truro ..	S.W. Counties	1 3	11 1/2
B <sub>1</sub>	Crencroft ..	S. Counties	1 3 1/2	11 1/2	A <sub>1</sub>	Loughborough ..	Mid. Counties	1 6	1 1 1/2	A <sub>2</sub>	Tunbridge Wells ..	S. Counties	1 4 1/2	1 0 1/2
A	Cliithorpe ..	N.W. Counties	1 6	1 1 1/2	A <sub>1</sub>	Luton ..	E. Counties	1 5 1/2	1 1 1/2					
A	Clydebank ..	Scotland	1 6	1 1 1/2	A	Lytham ..	N.W. Counties	1 6	1 1 1/2					
A	Coalville ..	Mid. Counties	1 6	1 1 1/2										
A <sub>2</sub>	Colchester ..	E. Counties	1 5	1 0 1/2	A <sub>1</sub>	<b>M</b> ACLESFIELD ..	N.W. Counties	1 5 1/2	1 1 1/2					
A	Colne ..	N.W. Counties	1 5 1/2	1 1 1/2	A <sub>2</sub>	Maldstone ..	S. Counties	1 4 1/2	1 0 1/2	A	<b>W</b> AKEFIELD ..	Yorkshire	1 6	1 1 1/2
A <sub>2</sub>	Colwyn Bay ..	N.W. Counties	1 5	1 0 1/2	A <sub>2</sub>	Malvern ..	Mid. Counties	1 4 1/2	1 0 1/2	A	Walsall ..	Mid. Counties	1 6	1 1 1/2
A <sub>1</sub>	Consett ..	N.E. Coast	1 5 1/2	1 1 1/2	A	Manchester ..	N.W. Counties	1 6	1 1 1/2	A	W			

Gas	Per cent.	Galvanized gas	Per cent.
Water	65	water	52
Steam	61½	steam	47
	57½		42

FITTINGS.			
Gas	Per cent.	Galvanized gas	Per cent.
Water	57	water	47
Steam	53	steam	42
	47		37



# CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and

profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.	2	9	
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	8	6	
" to form basement n/e 5' 0" deep and cart away	"	9	0	
" " 10' 0" deep and cart away	"	9	6	
" " 15' 0" deep and cart away	"	10	0	
If in stiff clay	add	"	0	
If in underpinning	"	4	0	
Planking and strutting to sides of excavation	F.S.	1	0	
" " to pier holes	"	5		
" " to trenches	"	5		
" " extra, only if left in	"	3		
Hardcore, filled in and rammed	Y.C.	10	0	
Portland cement concrete in foundations (6-1)	"	12	6	
" " (4-2-1)	"	16	0	
Finishing surface of concrete, space face	Y.S.	7		

DRAINLAYER		£	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2
Extra, only for bends	Each	2	8	3
" " junctions	"	3	9	6
Gullies and gratings	"	16	6	18
Cast iron drains, and laying and jointing	F.R.	4	9	6
Extra, only for bends	Each	10	6	15

BRICKLAYER		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	26	10	0
" " in cement	"	27	12	6
" " Stocks in cement	"	34	0	0
" " Blues in cement	"	50	0	0
Extra only for circular on plan	"	2	0	0
" " backing to masonry	"	1	10	0
" " raising on old walls	"	2	0	0
" " underpinning	"	5	10	0
Fair Face and pointing internally	F.S.	8		
Extra over fletton brickwork for picked stock facings and pointing	"	11		
" " red brick facings and pointing	"	1	4	
" " blue brick facings and pointing	"	3	6	
" " glazed brick facings and pointing	"	7		
Tuck pointing	"	10		
Weather pointing in cement	"	3		
Slate dampcourse	"	1	1	
Vertical dampcourse	"	1	1	

ASPHALTER		£	s.	d.
Horizontal dampcourse	Y.S.	4	6	
Vertical dampcourse	"	6	9	
" paving or flat	"	4	0	
" paving or flat	"	3	6	
1" x 6" skirting	F.R.	1	0	
Angle fillet	"	2		
Rounded angle	"	2		
Cesspools	Each	5	0	

MASON		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	17	9	
Bath stone and do., all as last	"	13	6	
Artificial stone and do.	"	13	0	
York stone templates, fixed complete	"	10	6	
" " thresholds	"	13	6	
" " sills	"	1	0	6

SLATER AND TILER		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" x 10"	Sqr.	3	10	0
Do., 18" x 9"	"	3	7	0
Do., 24" x 12"	"	3	7	0
Westmorland slating, laid with diminished courses	"	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	"	3	0	0
Do., all as last, but of machine-made tiles	"	2	16	0
20" x 10" medium Old Delabole slating, laid to a 3" lap (grey)	"	2	16	0
" " " (green)	"	4	15	0

CARPENTER AND JOINER		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	6	
Shuttering to sides and soffits of beams	F.S.	7		
" " to staircases	"	1	6	
Fir and fixing in wall plates, lintols, etc.	F.C.	3	9	
Fir framed in floors	"	4	6	
" " roofs	"	6	6	
" " trusses	"	7	6	
" " partitions	"	8	6	
1" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" " " " "	"	1	17	6
1" x 2" fir battening for Countess slating	"	2	3	0
Do. for 4" gauge tiling	"	12	0	
Stout feather-edged tilting fillet	F.R.	4		
Patent inodorous felt, 1 ply	Y.S.	2	3	
" " " "	"	2	9	
" " " "	"	3	3	
Stout herringbone strutting to 9" joists	F.R.	10		
1" deal gutter boards and bearers	F.S.	1	2	
1" " " "	"	1	6	
2" deal wrought rounded roll	F.R.	1	8	
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	1	0
1" do.	"	2	10	0
1" do.	"	2	17	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.	1	6	
1" do.	"	1	9	

CARPENTER AND JOINER—continued		£	s.	d.
1 1/2" deal moulded sashes of average size	F.S.	1	9	
2" " " "	"	1	11	
1 1/2" deal cased frames double hung, of 6" x 3" oak sills, 1 1/2" pulley stiles, 1 1/2" heads, 1" inside and outside linings, 1/2" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3	7	
2" " " "	"	3	10	
Extra only for moulded horns	Each	3	6	
1 1/2" deal four-panel square, both sides, door	F.S.	2	0	
2" " " "	"	2	8	
1 1/2" " but moulded both sides	"	2	4	
2" " " "	"	3	0	
4" x 3" deal, rebated and moulded frames	F.R.	1	0	
1 1/2" x 3" " "	"	1	4	
1 1/2" deal tongued and moulded window board, on and including deal bearers	F.S.	1	9	
1 1/2" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2	6	
1 1/2" deal moulded wall strings	"	2	1	
1 1/2" " outer strings	"	2	4	
Ends of treads and risers housed to string	Each	1	9	
3" x 2" deal moulded handrail	F.R.	1	3	
1" x 1" deal balusters and housing each end	Each	2	0	
1 1/2" x 1 1/2" " "	"	2	9	
3" x 3" deal wrought framed newels	F.R.	1	3	
Extra only for newel caps	Each	6	0	
Do., pendants	"	6	0	

SMITH AND FOUNDER		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	16	6	
Riveted plate or compound girders, and hoisting and fixing in position	"	1	0	6
Do., stanchions with riveted caps and bases and do.	"	19	0	
Mild steel bar reinforcement, 1/2" and up, bent and fixed complete	"	17	6	
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11		
Wrought-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER		£	s.	d.
Milled lead and labour in flats	cwt.	2	0	3
Do. in flashings	"	2	3	9
Do. in covering to turrets	"	2	9	3
Do. in soakers	"	1	15	9
Labour to welded edge	F.R.	3		
Open copper nailing	"	3		
Close	"	4		

Lead service pipe and fixing with pipe hooks		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Do. soil pipe and fixing with cast lead tacks	F.R.	10	1	0	1	3	2	0	2	10	—
Extra, only to bends	Each	—	—	—	—	—	—	—	—	5	6
Do. to stop ends	"	6	1/2	8	9	11	1	0	—	6	9
Boiler screws and unions	"	3	3	3	9	5	0	8	0	—	—
Lead traps	"	—	—	—	—	6	3	8	9	—	—
Screw down bib valves	"	6	9	9	6	11	0	—	—	—	—
Do. stop cocks	"	7	0	9	6	12	6	—	—	—	—
4" cast-iron 1/2-rd. gutter and fixing	"	—	—	—	—	—	—	—	—	F.R.	1
Extra, only stop ends	"	—	—	—	—	—	—	—	—	Each	1
Do. angles	"	—	—	—	—	—	—	—	—	Each	1
Do. outlets	"	—	—	—	—	—	—	—	—	Each	1
4" dia. cast-iron rain-water pipe and fixing with ears cast on	"	—	—	—	—	—	—	—	—	F.R.	1
Extra, only for shoes	"	—	—	—	—	—	—	—	—	Each	1
Do. for plain heads	"	—	—	—	—	—	—	—	—	Each	5

PLASTERER AND TILING		£	s.	d.
Expanded metal lathing, small mesh	Y.S.	2	0	
Do. in n/w to beams, stanchions, etc.	"	2	9	
Lathing with sawn laths to ceilings	"	1	3	
1/2" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1	5	
Do. vertical	"	1	7	
Rough render on walls	"	1	2	
Render, float and set in lime and hair	"	1	9	
Render and set in Sirapite	"	1	11	
Render, backing in cement and sand, and set in Keene's cement	"	2	9	
Extra, only if on lathing	"	4		
Keene's cement, angle and arris	F.R.	6		
Arris	"	4		
Rounded angle, small	"	3		
Plain cornices in plaster, including dubbing out, per 1" girth	"	1	1	
1" granolithic pavings	Y.S.	3	6	
1 1/2" x 6" white glazed wall tiling and fixing on prepared screed	"	4	6	
9" x 3" " "	"	17	6	
Extra, only for small quadrant angle	F.R.	1	2	8

GLAZIER		£	s.	d.
21 oz. sheet glass and glazing with putty	F.S.	6		
26 oz. do. and do.	"	7		
Flemish, Arctic Figured (white) and glazing with putty	"	1	1	
Cathedral glass and do.	"	1	2	
Glazing only, British polished plate	"	7		
Extra, only if in beads	"	2		
Washleather	F.R.	4		

PAINTER		£	s.	d.
Clearcolle and whiten ceilings	Y.S.	6		
Do. and distemper walls	"	9		
Do. with washable distemper	"	1	1	
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3	3	
Do. on woodwork	"	3	6	
Do. on steelwork	"	3	0	
Do. and brush grain and twice varnish	"	5	6	
Stain and twice varnish woodwork	"	1	11	
Stain and wax-polish woodwork	"	4	6	
French polishing	F.S.	1	2	
Stripping off old paper	Piece	2		
Hanging ordinary paper	from	2	9	





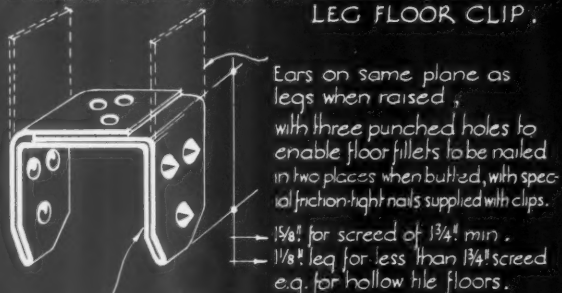


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## BULL DOG CLIPS :

- ① FOR FLOORS OF: concrete or hollow tile work .  
 SUSPENDED CEILINGS: to above  
 MANSARD ROOFS: of concrete, hollow tile, or  
 precast unit construction .

## TYPICAL SKETCH OF 2" REGULAR &amp; 2" SHORT-LEG FLOOR CLIP.



One-piece pointed legs, with three anchoring lugs.

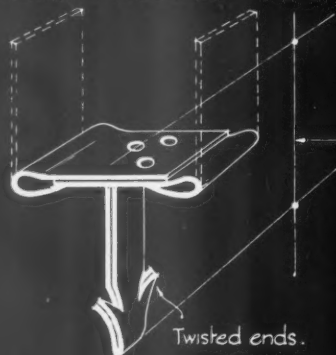
## SECTION THROUGH CONCRETE FLOOR showing BULL DOG floor clips in position .



## APPLICATION :

Standard Bull Dog Clips are constructed in one piece from 20 gauge sherardised sheet metal and are pushed into the green concrete (so that the cross bar is flush) within about thirty minutes of laying and levelling. When the flooring is ready to be laid, the ears are raised with the claw of a hammer, and the 2" x 2" square cut floor fillets are dropped in and nailed. The levelling of low spots is performed by wedging up the floor fillets and grouting with cement mortar. For typical specification and notes on the placing of clips and floor fillets, see the reverse side hereof.

- ② FOR PRECAST FLOORS : One-leg Floor Clip of 20 gauge sheet metal in one piece.



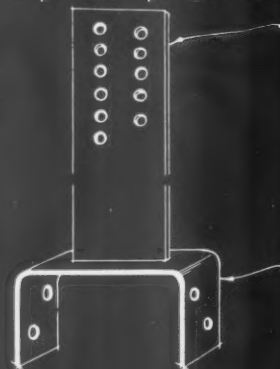
Standard ears with three punched holes for two special friction-tight nails and 2" x 2" square cut floor fillets as for 2" Regular floor clips above. Ears are raised with claw of hammer when floor is ready to be laid.

STANDARD LENGTH OF LEG 1 3/8"

## APPLICATION :

Leg is inserted into the green screeding between the precast floor units until the cross bar is flush with the surface of the units. Spacing of rows depends upon the type of precast floor unit which is being used, while the spacing of the individual clips along the fillets is as shown above for the 2" Regular floor clip. Fixing and levelling of floor fillets, similar to that of the 2" Regular type.

- ③ FOR SUSPENDED CEILINGS UNDER PRECAST FLOORS : Single shank ceiling clip, in 20 gauge sherardised sheet metal .



COMMON LENGTH OF SHANK 7 1/2", depending on thickness of precast beam.

## APPLICATION :

The spacing, dependent upon the type of precast beam being used, is commonly 18" to 24" centres, the exact distance being determined by the cross section of the precast beams.

A method of levelling is to put the clips upon the 2" wood ceiling battens before placing the latter in position prior to grouting .

STANDARD LENGTH OF EARS 1 3/8"

Ears are designed to take 2" wide ceiling battens and are punched for two special friction-tight nails as for other types of Bull Dog clips. Expanded metal or other lathing may then be fixed in the usual manner.

*Information from The Adamite Company Limited.*

## INFORMATION SHEET: SHEET METAL FLOOR CLIPS

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 Oscar A. Bayne

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INFORMATION SHEET

• 269 •

FLOOR AND CEILING  
CLIPS

Product : Bulldog Clips

General :

Bulldog clips are made in pressed steel to provide a method of fixing floor, ceiling, or roof battens to precast or in situ concrete work.

As shown on this Sheet, five standard clips are produced :

- (a) 2 in. regular floor clips.
- (b) 2 in. short leg floor clips.
- (c) One leg floor clips.
- (d) 2 in. regular ceiling clips.
- (e) Single leg ceiling clips.

All types incorporate the same method of fixing the batten, i.e., ears which are turned up after the clip is in position, the batten being placed between the two ears and nailed through them as shown.

(a) The 2 in. regular floor clip is used for anchoring wood floors to concrete floors or to hollow tile floors with a minimum screed of  $1\frac{3}{4}$  in.

The legs of the clips are pushed into the green concrete until the cross bar is flush with the top of the concrete. When the concrete is set the clip is held firm, additional security being given by the indentations in the legs of the clip keying into the concrete.

(b) The 2 in. short leg floor clip is similar but the short legs are provided especially for use with hollow tile floors where the screed is 1 in.— $1\frac{3}{4}$  in. in thickness.

(c) The one leg floor clip with ragged end is made for use with precast floors, for hollow tile floors with a screed under 1 in. and for ceiling battens under tile or precast floors—the single leg being pushed down into the joint between the precast units.

(d) The 2 in. regular ceiling clip is similar in principle to the floor clip, being used for

securing slating battens to Mansard roofs and for holding suspended ceiling battens to concrete floors.

(e) The single leg ceiling clip is for use with precast floors; the leg of the clip is pushed into the joints between the precast units, security being given by twisting the leg of the clip before grouting in and turning over any projecting portion.

The regular clip is also supplied in the 3 in. size.

All clips are sherardized for rust-prevention and, with the exception of the single leg ceiling clip, are delivered to the job with fixing wings bent down.

Quantities and Spacing clips :

For general use the clips should be at 16 in. centres along the fillets, with the fillets at 12 in. or 14 in. centres, depending upon the type of floor boards used. If at 12 in. centres 75 clips per square of flooring are required; if at 14 in. centres 64.3.

For very light use floors the clips may be spaced up to 24 in. centres along the fillets. If the fillets are at 12 in. centres 50 clips per square of flooring would be required and if at 14 in. centres 42.8 clips per square of flooring.

For heavy traffic floors, such as factory floors, the clips should be at 12 in. centres along the fillets. If the fillets are at 12 in. centres 100 clips per square of flooring would be required and if at 14 in. centres 85.7 clips per square.

If there are definite runways where constant trucking is taking place it is a common practice that the space between the fillets (under the runways) should be filled with Tarmac or other similar material.

Prices.

The following prices are list prices only, special quotations may be obtained for all clips in quantity.

		per thousand
1. 2 in. regular floor clip	2 in. £7 15 0	
	3 in. £8 8 0	
2. 2 in. short leg floor clip	.. £7 15 0	
3. One leg floor clip	.. £7 15 0	
4. 2 in. regular ceiling clip	.. £7 15 0	
5. Single leg ceiling clip ( $7\frac{1}{2}$ in.)	£9 10 0	

Name of Manufacturers : Adamite Co., Ltd.

Telephone : Temple Bar 6233-4-5

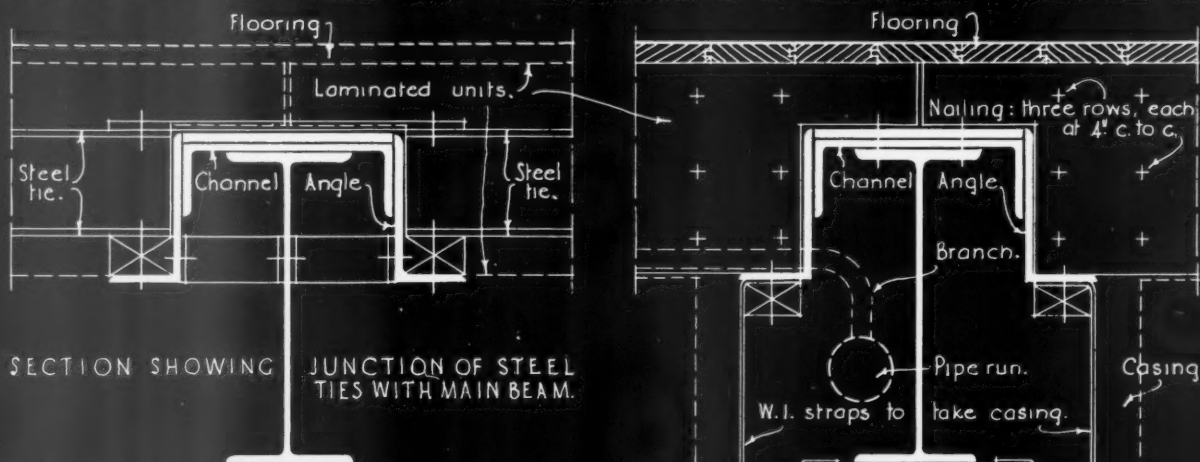
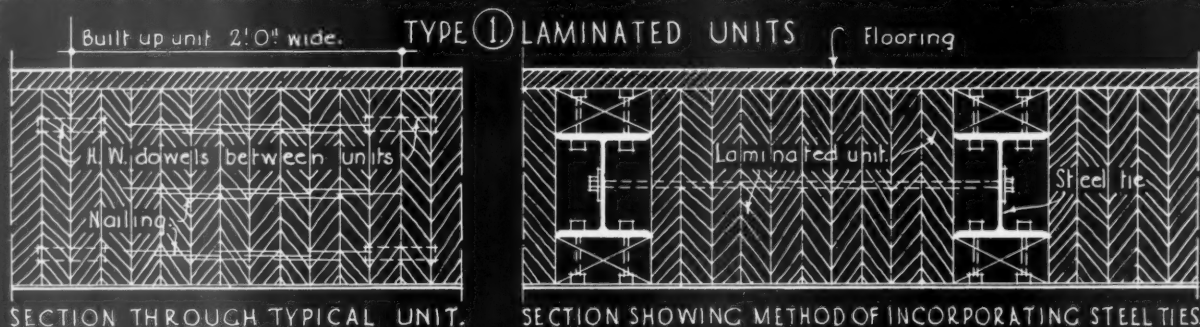
Address : Manfield House, Strand, W.C.2



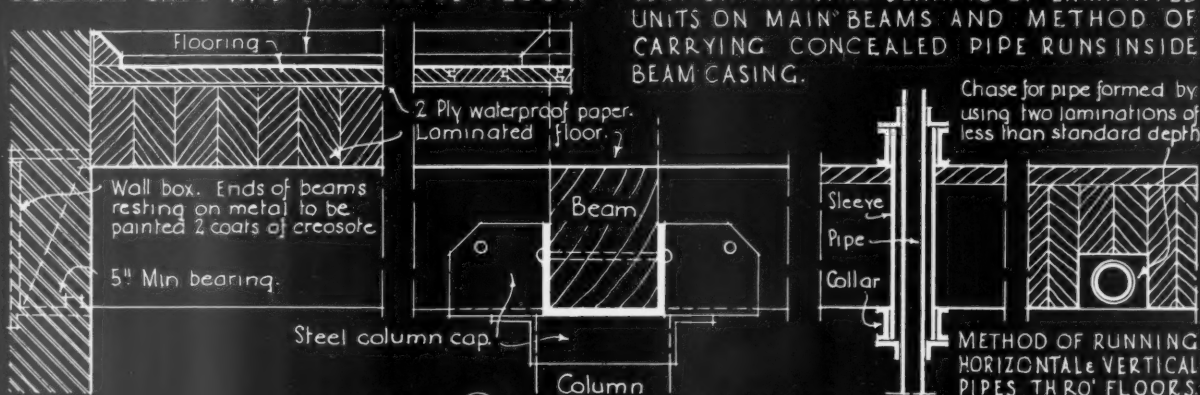




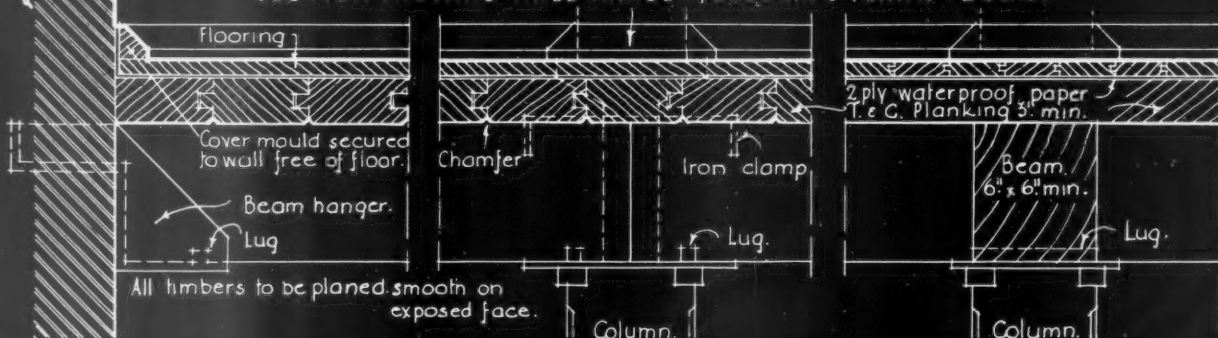
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**TYPE ② SEPARATE LAMINATIONS.**  
SECTION SHOWING WALL BOX, STEEL COLUMN CAPS AND LAMINATED FLOOR.



**TYPE ③ HEAVY PLANKING.**  
SECTION SHOWING WALL HANGER, COLUMN & PLANK FLOOR.



*Information from The Timber Development Association.*

INFORMATION SHEET : LAMINATED SOLID TIMBER FLOORS.

6. 35. SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1. *Drawn by G. Bayne.*

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INFORMATION SHEET

• 270 •

TIMBER  
CONSTRUCTION

Type of Product : Laminated Solid Timber  
Floors

This Sheet gives details of three variations of solid timber floor construction.

Type No. 1. This type of floor has been constructed recently in Messrs. Lewis's stores, Birmingham (Architect : G. de C. Fraser, F.R.I.B.A.) and consists of a series of built-up units which can be hoisted straight into position on the job.

Each unit is built up of a series of boards placed side by side ; each board is nailed to the last board by a series of nails as shown by the detail. Nails should be long enough to pass through two boards and penetrate the third.

When a unit 2 ft. 0 in. wide overall has been built up, the ends are notched to the shape required by the bearing conditions (see detail) and the unit is then run through a machine which accurately thicknesses it, and surfaces it on both faces. In the job mentioned above the boards used were 9 in. wide and between 1 in. and 1½ in. thick.

Chases for sprinkler pipes, etc., may be formed by the insertion into the units of narrower boards of sufficient thickness to provide the recess required (see detail).

Shop Work. It should be noticed that the whole of the work of building up the units, shaping the ends and thicknessing is done at the workshops, the built-up units are brought to the job complete, requiring only to be set in position and dowelled to one another.

Type No. 2. This floor is of similar construction, except that the wood members are not built up into units, but are put into position and nailed up one by one. The members in this case are usually relatively thicker than those used in Type No. 1.

Type No. 3. This construction is not, strictly speaking, a laminated floor, it does however come under the heading of solid timber slow-burning construction and as such has been included in this Sheet.

Timbers. The timbers available in this country especially recommended for this class of work are : Baltic Red Deal or Baltic Yellow Deal of Finnish, Swedish or Russian origin, or British Columbian Pine.

Information from : The Timber Development Association, Ltd.

Address : 69 Cannon Street, E.C.4

Telephone : City 2714